PONDICHERRY UNIVERSITY DEPARTMENT OF PHYSICAL EDUCATION

NCTE- Regulations

Scheme of Examination and Syllabus for the Master of Physical Education Course (M.P.Ed., 2020-2021 onwards) (FOUR SEMESTERS - CBCS)

PONDICHERRY UNIVERSITY DEPARTMENT OF PHYSICAL EDUCATION

NCTE- Regulations,

Scheme of Examination and Syllabus for the Master of Physical Education Course (M.P.Ed., 2020-2021 onwards) (FOUR SEMESTERS - CBCS)

Preamble:

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

Course objectives:

To enable the students to

- ✓ Attain wholesome development through physical education and sports
- ✓ Produce resourceful physical education teachers
- ✓ Encourage participation of students in sports and physical education activities
- ✓ Create awareness of health and fitness among all the stakeholders
- ✓ Acquire professional skills in various games and sports for teaching learning purpose
- ✓ Gain knowledge of the rules, regulation and their interpretation for "officiating" in sports and games
- ✓ Inculcate the ability to organize sports and games in a professional manner
- Gain knowledge on scientific principles from allied subjects in Physical Education & Sports
- ✓ Understand the concepts and role of different methods of sports training
- ✓ Develop desirable health habits and social integration of sportspersons

1.0 Intake

40 students in one unit each year as specified by NCTE.

1.1 Eligibility

(a) Bachelor of Physical Education (B.P.Ed.,) or equivalent with at least 50 % of marks.(up to 2015-16 one year B.P.Ed)

OR

Bachelor of Science (B.Sc.) in Health and Physical Education with at least 50% marks.

(b) The reservation in seats and relaxation in the qualifying marks for SC/ST/OBC/EWS and other categories shall be as per the rules of the Central Government/State Government, whichever is applicable.

1.2 Admission Procedure:

Admission shall be made on merit on the basis of marks obtained in the entrance examination (written test, skill test, interview and percentage in qualifying examination) or any other selection process as per the policy of the University & Central Government

1.3. Scheme of selection:

The selection of candidates for the M.P.Ed degree course is based on the following

CRITERIA FOR A GRAND TOTAL OF 100 MARKS

- a) Entrance (written) examination -Objective Type Multiple Choices Questions **400 Marks** (400 marks converted to 50 Marks)
- b) Physical Fitness Test (100mts Run, Shot put & 12/8 minutes(Run/Walk Test) 30 Marks
- c) Games Proficiency Test in any one of the following games (Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabbadi, Kho-Kho, Tennis and Volleyball)
 20 Marks
 - i. Entrance Examination converted to 50 Marks
 - ii. Practical Examination conducted for 50 Marks

Total 100 Marks

2.0 Duration:

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

3.0 The CBCS System:

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

4.0 Course:

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

5.0 Courses in M.P.Ed Programme:

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

> Theory

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

6.0 Semesters:

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

7.0 Working days:

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

8.0 Credits:

The term 'Credit' refers to a unit by which the programme is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or one and half / two hours of practical work/field work per week. The term "Credit" refers to the weight given to a course, usually in relation to the instructional hours assigned to it. The total minimum credits, required for completing M.P.Ed. Programme is 128 credits and for each semester 32 credits.

9.0 Evaluation:

CBCS as adopted by Pondicherry University will be the method of Evaluation

9.1 Breakup of Internal/ External End Semester Exams:

- 1. All subjects in a PG programme shall carry an Internal Assessment component to the extent of 40 marks and End Semester for 60 marks.
- 2. In case of Laboratory /Field/Project work based subjects, appropriate distribution of marks for Practical Record/ Project Report, Practical end-Semester exam, Viva, if any by the respective Programme Committee.
- 3. A student shall not be permitted to repeat any course only for the purpose of improving the grade.

9.2 Break up of Internal Assessment Marks

Each teacher shall organize a continuous assessment of each of the courses assigned to him/her. The internal assessment marks shall be given as per the following

Breakup:	Marks
Internal Assessment Tests / Term Papers / Quizzes (Two)	2 x 15 = 30
Seminars/ Assignments/ Presentations/ Attendance/ Viva, etc.	$1x\ 10 = 10$
Internal Total	40

9.3 Internal Assessments

A schedule of Internal Assessment tests shall be prepared at the very beginning of the semester. Internal Assessment marks shall be displayed within a week from the date of conduct of examination and all corrected answer papers shall be given back to students with comments, if any. It is mandatory for all students to participate in all the Internal Assessment tests and in various course-work related activities for award of the above marks.

9.4. End- semester examinations

An End Semester examination shall be conducted for all courses offered in the department. The duration of the end semester examination shall be for 3 hours.

- 1. A schedule of End Semester examinations be prepared and displayed by the department at least onemonth ahead of the conduct of the examination.
- 2. No student who has less than 70% attendance in any course shall be permitted to attend the end-semester examination and he shall be given grade of FA-failure due to lack of attendance. He shall be asked to repeat that course the next time it is offered.
- 3. Each teacher shall prepare a model question paper, a Panel of external examiners and submit the same to the Head of the Department.

9.5. Supplementary Exam

A failed student who meets the attendance requirement and has a minimum of 40% in internal assessment marks may be permitted to register for the next end-semester examination or in the following semester itself.

Students who have failed due to insufficient attendance and / or less than 40% in Internal Assessment marks should repeat the course as and when it is offered.

10.0 Classification of Final Results:

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

11.0 Grievance Redresses Committee:

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

12.0 Revision of Syllabi

Syllabi of every course will be revised according to the regulation of the NCTE.

13.0 Award of the M.P.Ed Degree

A candidate shall be eligible for the award of the degree of M.P.Ed. Only if he/she has earned the minimum required credit of 128 including bonus credits of the programme prescribed above.

COURSE SCHEME AND SCHEME OF EXAMINATIONS SEMESTER I

Part-A: Theoretical Course (400 Marks)							
Course Code	Title of the Papers	Weekly Contact Hour	Credit	Internal Marks	External Marks	Total Marks	
	Core	Course		l		l	
MPCC- 101	Research Process in Physical Education & Sports Sciences	4	4	40	60	100	
MPCC-102	Physiology of Exercise	4	4	40	60	100	
MPCC-103	Test and Measurement and Evaluation in Physical Education	4	4	40	60	100	
	Elective Cou	irse (Anyon	e)				
MPEC-104 MPEC-105	Yogic Sciences Sports Technology	4	4	40	60	100	
WIFEC-103	Part B: Practical C	011111111111111111111111111111111111111	Montra)				
	Track and Field-I	ourse (400	Marks)	T			
MPPC-106	Aii Running Events & Relay	6	4	40	60	100	
MPPC-107	Laboratory Practical - I Test and Measurement (according to the test and measurements theory paper)	6	4	40	60	100	
MPPC-108	Yoga / Aerobics	6	4	40	60	100	
Game of Spe	cialization – \mathbf{I} as offered by the department	ent (from M	PPC 109-	117)			
MPPC-109	Basketball	6	4	40	60	100	
MPPC-110	Cricket	6	4	40	60	100	
MPPC-111	Football	6	4	40	60	100	
MPPC-112	Handball	6	4	40	60	100	
MPPC-113	Hockey	6	4	40	60	100	
MPPC-114	Kabaddi	6	4	40	60	100	
MPPC-115	Kho-Kho	6	4	40	60	100	
MPPC-116	Tennis	6	4	40	60	100	
MPPC-117	Volleyball	6	4	40	60	100	
	Total	40	32	320	480	800	

SEMESTER-II

	Part-A: Theoretical (Marks)			
Course Code	Title of the Papers	Weekly Contact Hour	Credit	Internal Marks	External Marks	Total Marks
	Core C	ourse				1
MPCC-201	Applied Statistics in Physical Education & Sports	4	4	40	60	100
MPCC-202	Sports Biomechanics & Kinesiology	4	4	40	60	100
MPCC-203	Athletic Care and Rehabilitation	4	4	40	60	100
	Elective Cour	se (Anyone)			
MPEC-204	Sports Journalism and Mass Media Advance Sports Management in Physical	4	4	40	60	100
MPEC-205	Education					
	Part B: Practical Co	urse (400 N	Marks)			
1 (DDC 20)	Track and field - II		,	40	60	100
MPPC-206	Jumping Events & hurdles	6	4	40	60	100
MPPC-207	& Kinesiology (5 tests each) (according to the Biomechanics & Kinesiology theory paper)	6	4	40	60	100
MPPC-208	Teaching Lessons of Indigenous Activities and Sports- 5 Lessons (4 Internal & 1 External)	6	4	40	60	100
Game of Spec	ialization-I Teaching Coaching and Officiating	g Game of S	Specializati	on - I	•	•
(from MPPC	209 -217)					
MPPC-209	Basketball	6	4	40	60	100
MPPC-210	Cricket	6	4	40	60	100
MPPC-211	Football	6	4	40	60	100
MPPC-212	Handball	6	4	40	60	100
MPPC-213	Hockey	6	4	40	60	100
MPPC-214	Kabaddi	6	4	40	60	100
MPPC-215	Kho-Kho	6	4	40	60	100
MPPC-216	Tennis	6	4	40	60	100
MPPC-217	Volleyball	6	4	40	60	100
	Total	40	32	320	480	800

	Part-A: Theoretical Course (400 Marks)						
Course Code	Title of the Papers	Weekly Contact Hour	Credit	Internal Marks	External Marks	Total Marks	
	Core	Course					
MPCC-301	Scientific Principles of	4	4	40	60	100	
MPCC-302	Sports Training Sports Medicine	4	4	40	60	100	
MPCC-303	Health Education and Sports Nutrition	4	4	40	60	100	
	Elective Cou	 irse (Anyone))				
MPEC-304	Sports Engineering					100	
MPEC-305	Physical Fitness and Wellness	4	4	40	60		
	Part - B: Practical (Marks)				
MPPC-306	Track and Field - III		4	40	60	100	
MIPPC-300	Throwing Events & Gymnastics	6	4	40			
MPPC-307	Laboratory Practical – III Sports Medicine and Physiotherapy (according to the Sports Medicine and Physiotherapy theory paper)	6	4	40	60	100	
MPPC-308	Internship	6	4	40	60	100	
	Games Specialization-II as offered by	the departmen	t (from M	PPC 309 -31	7)		
MPPC-309	Basketball	6	4	40	60	100	
MPPC-310	Cricket	6	4	40	60	100	
MPPC-311	Football	6	4	40	60	100	
MPPC-312	Handball	6	4	40	60	100	
MPPC-313	Hockey	6	4	40	60	100	
MPPC-314	Kabaddi	6	4	40	60	100	
MPPC-315	Kho-Kho	6	4	40	60	100	
MPPC-316	Tennis	6	4	40	60	100	
MPPC-317	Volleyball	6	4	40	60	100	
	Total	40	32	320	480	800	

	Part-A: Theoretical	Course (400	Marks)			
Course Code	Title of the Papers	Weekly contact Hour	Credit	Internal Marks	External Marks	Total Marks
	Core (Course			•	
MPCC-401	Information & Communication Technology (ICT) in Physical Education	4	4	40	60	100
MPCC-402	Sports Psychology and Sports Sociology	4	4	40	60	100
MPCC-403	Dissertation	4	4	40	60	100
	Elective Cou	rse (Anyone))			l
MPEC-404 MPEC-405	Value and Environmental Education Education Technology in Physical Education and Sports	4	4	40	60	100
	Part - B: Practical C	ourse (400)	Marks)			
MPPC-406	Track and Field- IV Combined Events	6	4	40	60	100
MPPC-407	Laboratory Practical – IV Exercise Physiology & Sports Psychology (5 tests each) (according to the Exercise Physiology & Sports Psychology theory paper)	6	4	40	60	100
MPPC-408	Officiating Lessons of Track and Field/ Lessons (4 Internal & 1 External)	6	4	40	60	100
•	zation- II Teaching Coaching and Officiating	Games Spec	cialization-	- II		
(from MPPC	,					
MPPC-409	Basketball	6	4	40	60	100
MPPC-410	Cricket	6	4	40	60	100
MPPC-411	Football	6	4	40	60	100
MPPC-412	Handball	6	4	40	60	100
MPPC-413	Hockey	6	4	40	60	100
MPPC-414	Kabaddi	6	4	40	60	100
MPPC-415	Kho-Kho	6	4	40	60	100
MPPC-416	Tennis	6	4	40	60	100
MPPC-417	Volleyball	6	4	40	60	100
	Total	40	32	320	480	800

SYLLABUS

Semester I

Theory Courses

MPCC-101 RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS SCIENCES

Learning Objectives:

- Introduce Research and its various aspects to the learner
- Give an overview of the types of Research
- Give a clear understanding of the sampling techniques
- To provide an understanding on writing a Research Proposal and Report

UNIT I – Introduction

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

UNIT II - Methods of Research

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

UNIT III – Experimental Research

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

UNIT IV – Sampling

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

UNIT V - Research Proposal and Report

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

Learning Outcome:

- Comprehend various aspects of Research and understand its types
- Competency in formulating the steps and sampling in research
- Capability to prepare a Research Proposal and a Report

REFERENCE:

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
- Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, Londonl Routledge Press
- 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.
- Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar PathippagamRothstain, A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc
- Subramanian, R, Thirumalai Kumar S & Arumugam C (2010) Research Methods in Health, Physical Education and Sports, New Delhi; Friends Publication
 - Moorthy A. M. Research Processes in Physical Education (2010); Friend Publication, New Delhi.

MPCC-102 PHYSIOLOGY OF EXERCISE

Objectives: After studying this paper the student teachers will be able:

- 1. To know the effect of exercise on skeletal system.
- 2. To know the effect of exercise on cardiovascular system.
- 3. To know the effect of exercise on Respiratory system.
- 4. To understand metabolism a energy transfer.
- 5. To understand the climatic conditions, sports performance & ergogenic aids

UNIT I – Skeletal Muscles and Exercise

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

UNIT II – Cardiovascular System and Exercise

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

UNIT III – Respiratory System and Exercise

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

UNIT IV - Metabolism and Energy Transfer

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

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

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

REFERENCES:

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

Poompugar Pathipagam.

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

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

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

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

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

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

Sandhya Tiwaji. (1999). Exercise Physiology. Sports Publishers.

Shaver, L. (1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.

Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication. William, D. Mc Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human

Performance. Philadelphia: Lippincott Williams and Wilkins Company.

MPCC-103 TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

Learning Objectives

1. To understand the importance of test, measurement and evaluation in the field of physical education which is applicable for evaluating administer a variety of tests, health and fitness.

2. To learn the administration of test for conducting research

UNIT I – Introduction

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

UNIT II – Motor Fitness Tests

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

UNIT III – Physical Fitness Tests

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

UNIT IV – Anthropometric and Aerobic-Anaerobic Tests

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

UNIT V - Skill Tests

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

Learning outcomes

- 1. Understand the Test, Measurement and Evaluation in physical education, Health and Fitness.
- 2. Know about the different types of skill test for different sports and games.
- 3. Apply the tests in minor & major research areas.
- 4. Analyse the performance and movements in the field of sports.
- 5. Evaluate the battery test and others tests prescribed for knowing various information out of it..

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

REFERENCES:

Authors Guide (2013) ACSM"s Health Related Physical Fitness Assessment Manual, USA: ACSM Publications Collins, R.D., & Hodges P.B. (2001) A Comprehensive Guide to Sports Skills Tests and Measurement (^{2nd} edition) Lanham: Scarecrow Press.

Cureton T.K. (1947) Physical Fitness Appraisal and Guidance, St. Louis: The C. MosbyCompany Getchell B (1979) Physical Fitness A Way of Life, 2nd Edition New York, John Wiley and Sons, Inc Jenson, Clayne R and Cynt ha, C. Hirst (1980) Measurement in Physical Education and Athletics, New York, Macmillan Publising Co. Inc

Kansal D.K. (1996), "Test and Measurement in Sports and Physical Education, New Delhi: DVS Publications Krishnamurthy (2007) Evaluation in Physical Education and Sports, New Delhi; Ajay Verma Publication Vivian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription 3rd Edition, Dallas TX: The Cooper Institute for Aerobics Research

Wilmore JH and Costill DL. (2005) Physiology of Sport and Exercise: 3rd Edition. Champaigm IL: Human Kinetics Yobu, A (2010), Test, Measurement and Evaluation in Physical Education in Physical Education and Sports. New Delhi; Friends Publications

MPEC-104 Yogic Sciences (Elective) Learning Objectives

- 1. To understand and apply the underlying concepts of Yoga
- 2. To promote knowledge and awareness of skeletal alignment and body mechanics, emphasizing a safe and intelligent use of the body
- 3. To cultivate breath control, relaxation techniques and kinaesthetic awareness

Unit I – Introduction

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

Unit II - Aasanas and Pranayam

Loosening exercise: Techniques and benefits. Asanas: Types- Techniques and Benefits,

Surya Namaskar: Methods and benefits. Pranayama: Types- Methods and benefits. Nadis: Meaning, methods and benefits, Chakras: Major Chakras- Benefits of clearing and balancing Chakras.

Unit III – Kriyas

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

Unit IV - Mudras

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

Unit V – Yoga and Sports

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

Learning outcomes

- 1. Understand the basic Concepts of Yoga
- 2. Apply the principles of Yoga to live healthy and active life style.
- 3. Promote the awareness of health through yoga
- 4. Analyse the techniques and of body posture to bring out healthy change.
- 5. Develop the knowledge through practice, participate and organize.

Note: Laboratory Practicals be designed and arranged internally.

REFERENCE:

George Feuerstein, (1975). Text Book of Yoga. London: Motilal Bansaridass Publishers (P) Ltd.

Gore, (1990), Anatomy and Physiology of Yogac Practices. Lonavata: Kanchan Prkashan.

Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter House book.

Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.

Karbelkar N.V.(1993) Patanjal Yogasutra Bhashya (Marathi Edition) Amravati: Hanuman Vyayam Prasarak Mandal

Kenghe. C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): Historical Background, Varanasi:

Bharata Manishai.

Kuvalyananada Swami & S.L. Vinekar, (1963), Yogic Therapy – Basic Principles and Methods. New Delhi: Govt.

of India, Central Health Education and Bureau.

Moorthy A.M. & Alagesan. S. (2004) Yoga Therapy. Coimbatore: Teachers Publication House.

Swami Kuvalayanda, (1998), Asanas. Lonavala: Kaivalyadhama.

Swami Satyananada Sarasvati. (1989), Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga.

Swami Satyananda Saraswathi. (1984), Kundalini and Tantra, Bihar: Yoga Publications Trust.

Swami Sivananda, (1971), The Science of Pranayama. Chennai: A Divine Life Society Publication.

Thirumalai Kumar. S and Indira. S (2011) Yoga in Your Life, Chennai: The Parkar Publication.

Tiwari O.P. (1998), Asanas-Why and How. Lonavala: Kaivalyadham.

MPEC-105 SPORTS TECHNOLOGY (Elective)

Learning Objectives

- 1. To understand the procedure of selection and use of various sports technologies.
- 2. To learn the method of construction and installation of sports surface
- 3. Help to improve knowledge about modern playing equipment

UNIT I – Sports Technology

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

UNIT II – Science of Sports Materials

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

UNIT III – Surfaces of Playfields

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

UNIT IV – Modern equipment

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

UNIT V – Training Gadgets

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

Learning outcomes

- 1. Plan, develop, communicate, implement, and evaluate technology-infused strategic plans.
- 2. Maintain and manage a variety of digital tools and resources for use in technology-rich sports environment
- 3. Design, develop, and implement technology-rich sports program that model of sports field and promote digital age best practices in teaching, playing and assessment.
- 4. Find out how successful were the teachers' efforts in contributing to the realization of the fundamental objectives of sports.

5. Assessments which learning experiences were effective in promoting and enhancing learning, which teaching methods and techniques are effective in the realization of the sports objectives.

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

REFERENCE:

Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) "Selection of Engineering Materials" UK: Butterworth Heiremann.

Finn, R.A. and Trojan P.K. (1999) "Engineering Materials and their Applications" UK: Jaico Publisher.

John Mongilo, (2001), "Nano Technology 101 "New York: Green wood publishing group.

Walia, J.S. Principles and Methods of Education (Paul Publishers, Jullandhar), 1999.

Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jullandhar, Sterling Publishers Pvt. Ltd.), 1982

Kozman, Cassidy and Jackson. Methods in Physical Education (W.B. Saunders Company, Philadelphia and London), 1952.

MPCC-201 APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

Learning Objectives

- 1. Gain knowledge about statistics
- 2. To testing the existing theories/trainings and modifying
- 3. To develop systematic and scientific approach
- 4. Ability to interpret the data's

UNIT I – Introduction

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

UNIT II - Data Classification, Tabulation and Measures of Central Tendency

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

UNIT III – Measures of Dispersions and Scales

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

UNIT IV – Probability Distributions and Graphs

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

UNIT V – Inferential and Comparative Statistics

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

Learning outcomes

- 1. Understand and apply the statistics in research.
- 2. Organize the samples and sampling techniques which is relevant to the study.
- 3. Apply the statistics in research thesis for evaluation.

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) Reserach Methodology in Physical Education and Sports, New Delhi

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

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

Thirumalaisamy (1998), Statistics in Physical Education, Karaikudi, Senthilkumar Publications.

MPCC-202 SPORTS BIOMECHANICS AND KINESIOLOGY

Learning Objectives

- 1. The primary objective of Biomechanics is to gain a better understanding of the cause-effect mechanisms of sports motions.
- 2. To understand the mechanical cause-effect relationships that determines the motions of living organisms.

 "In Human Performance."
- 3. Biomechanics contributes to the description, explanation, and prediction of the mechanical aspects of humanexercise, sport and play.
- 4. Sports biomechanics can be considered as the bridge between the knowledge of sports science and the principles of mechanical analysis and has an important role not only in improving the athletic performance, but also in increasing the safety of the athletes.
- 5. Kinesiology to improve performance by learning how to analyze the movements of the human body and to discover their underlying principles.

6. The study of kinesiology is an essential part of the educational experience of students of physical education and sports.

UNIT I – Introduction

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

UNIT II – Muscle Action

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

UNIT III – Motion and Force

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

UNIT IV - Projectile and Lever

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

UNIT V – Movement Analysis

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

Learning Outcomes

Describe the kinematics of projectile motion and factors influencing projectile trajectory.

- 1. Identify, analyze, and solve various biomechanical problems.
- 2. Demonstrate an understanding of kinetic concepts including inertia, force, torque, and impulse.
- 3. Identify the major factors involved in the angular kinematics of human movement.
- 4. Define Newton's laws of physics.
- 5. Identify the steps involved in finding the center of gravity.
- 6. The student will: Critically evaluate forms of information related to **kinesiology**, health, andphysical education.
- 7. Students will develop information literacy skills and abilities essential for adult learning.

- Describe fundamental principles of Kinesiology, including anatomy and physiology, teaching movement related skills, health promotion, physiological response to exercise, and the mechanics and control of movement.
- Utilize oral and written communication that meets appropriate professional and scientific standards in Kinesiology.

Note: Laboratory practical's should be designed and arranged for students internally

REFERENCE:

Deshpande S.H.(2002). Manav Kriya Vigyan – Kinesiology (Hindi Edition) Amravati :Hanuman Vyayam Prasarak Mandal.

Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication In.2005.

Steven Roy, & Richard Irvin. (1983). Sports Medicine. New Jersery: Prentice hall.

Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill.

Uppal A.K. Lawrence Mamta MP Kinesiology(Friends Publication India 2004)

Uppal, A (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friends publications.

Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.

MPCC-203 ATHLETIC CARE AND REHABILITATION

Learning Objectives

- 1. By learning the subject the students will be aware of the various injury in sports.
- 2. The students after learning will gain knowledge about the treatment of various injury in sports.
- 3. After completion of this subject the students will learn how to give rehabilitation.
- 4. This subject will also make the student learn about prevention of injuries.

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 bed posture. Posture test – Examination of the spine.

UNIT II - Posture

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

UNIT III - Rehabilitation Exercises

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

UNIT IV - Massage

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

UNIT V - Sports Injuries Care, Treatment and Support

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

Learning outcomes

- 1. Understand the primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes.
- 2. Demonstrate the basics of sport first aid during and after game situation.
- 3. Recognise and appropriately treat common sports injuries and conditions from onset through rehabilitation.
- 4. Identify and apply knowledge of anatomy to the design and execution of research studies.

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

REFERENCES:

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

Lace, M. V. (1951) Massage and Medical Gymnastics, London: J & A Churchill Ltd.

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.l. (1965) Corrective Physical education, London: W.B. Saunders & Co.

Stafford and Kelly, (1968) Preventive and Corrective Physical Education, New York.

MPEC-204 SPORTS JOURNALISM AND MASS MEDIA (Elective)

Learning Objectives

- 1. To promote the awareness of sports through journalism
- 2. To learn the techniques to sports organization through media
- 3. To know about Sports journalism and mass media contribution in sports field

UNIT I Introduction

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

UNIT II Sports Bulletin

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

UNIT III Mass Media

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

UNIT IV Report Writing on Sports

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

UNIT -V .Journalism

Sports organization and Sports Journalism – General news reporting and sports reporting. Methods of editing a Sports report. Evaluation of Reported News. Interview with and elite Player and Coach.

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

Learning outcomes

- 1. Understand the basic Journalism and Mass Media in Journalism.
- 2. Apply the media in sports field for promotion.
- 3. Promote the awareness of Sports organization and Sports Journalism.
- 4. Develop the knowledge through Journalism and Mass Media, participate and organize.

REFERENCE:

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

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

MPEC-205 ADVANCE SPORTS MANAGEMENT IN PHYSICAL EDUCATION AND SPORTS (Elective)

Learning Objectives

- 1. To identify the basic principles of Sports Management.
- 2. To know about organizational management and leadership.
- 3. To identify important issues and future trends in the field of sports management
- 4. Understand curriculum according to the needs of the students
- 5. Construct the curriculum for various levels
- 6. Update the present need which is mandatory

UNIT I – Sports Management Principles and Practices

Definition, Importance. Basic Principles and Procedures of Sports Management. Functions of Sports Management. The sports Manager –managing in the sports Environment –Management Function in sports –The Sports Manager: Basics of sports Management-Managing in the Sports Environment-Management functions in sports-Motivating Abilities:Fundamentals.

UNIT II - Program Management and planning in Sports organization

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. Planning in sports organization:Preparing the organization for planning-Long term planning-Creating a medium term National Plan.

UNIT III – Equipments Event Management 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. Meaning of Events-Event Management, Designing an event-5C's (Conceptualization, Costing, Canvassing, Customization, Carrying out. 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 – Sports Facility Management and Sports Marketing

Meaning of Facility management-Facility Planning-Facility System-facility Marketing-Facility preparations-Definition of Sports Marketing-Perspective in sports consumer behavior-role of Research in sports marketing-The sports product-Its Core and Extensions -Pricing strategies –Place/Product Distribution.

UNIT V – Curriculum and Professionals Ethics

Meaning and Definition of Curriculum. Principles of Curriculum Construction: Approaches to Curriculum, Curriculum Framework-Factors affecting curriculum: Sources of Curriculum materials –Integration of Physical

Education with other Sports Sciences – Curriculum research, Objectives of Curriculum research – Importance of Curriculum research-Ethics In Sports-Sports as a Profession-Social and Ethical-Ethical Values-Corporate Social Responsibility.

Learning Outcome

- 1. Know sports management and employ principles of strategic planning, and financial and human resource management.
- 2. Assess marketing needs and formulate short term and long term solutions.
- 3. Conceive, plan, execute, and evaluate a sports event.
- 4. Introduce the teaching and curriculum objectives and course module design
- 5. Analyse the planning strategies, teaching, learning and assessment
- 6. Develop strategies to promote quality learning, practice marking and consider methods of course and selfevaluation
- 7. Evaluating learning intentions and the process that is guided through explicit and manageable criteria

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.

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

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

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

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

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

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

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

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

Ruben Acosta Hernandez, Managing Sports Organisation, Human Kinetics

S.A. Sherlekar, Ethics in Management, Himalaya Publishing House, 2009

Beeslory, Michel and Evens, Corporate Social Responsibility, Taylor and Francis, 1978

Subhabrata Bobby Banejee, CSR: the good ,the bad and the ugly, Edward Elgar Publishing, 2007.

Bernard J Mullin, Stephen Hardy, William A Sutton, Sports Marketing, Human Kinetics.

Judy Allen, Event Planning 2nd Edition, Wiley & Sons, Canada, 2014

Gil Fried, Managing Sports Facilities, Human Kinetics.

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

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

MPCC-301 SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

Learning Objectives

- 1. Understand the scientific principles of sports training.
- 2. Fix and adopt the training load
- 3. Prepare the sports person for the competition

UNIT I – Introduction

Sports training: Definition – Aim, Characteristics, Principles of Sports Training, Over Load: Definition, Causes of Over Load, Symptoms of Overload, Remedial Measures – Super Compensation – Altitude Training – Cross Training

UNIT II - Components of Physical Fitness

Strength: Methods to improve Strength: Weight Training, Isometric, Isotonic, Circuit Training, Speed: Methods to Develop Speed: Repetition Method, Downhill Run, Parachute Running, Wind Sprints, Endurance, Methods to Improve Endurance: Continuous Method, Interval Method, Repetition Method, Cross Country, Fartlek Training.

UNIT III – Flexibility

Flexibility: Methods to Improve the Flexibility- Stretch and Hold Method, Ballistic Method, Special Type Training: Plyometric Training. Training for Coordinative abilities: Methods to improve Coordinative abilities: Sensory Method, Variation in Movement Execution Method, Variation in External Condition Method, Combination of Movement Method, Types of Stretching Exercises.

UNIT IV - Training Plan

Training Plan: Macro Cycle, Meso-Cycle. Short Term Plan and Long Term Plans - Periodisation: Meaning, Single, Double and Multiple Periodisation, Preparatory Period, Competition Period and Transition Period.

UNIT V - Doping

Definition of Doping – Side effects of drugs – Dietary supplements – IOC list of doping classes and methods. Blood Doping – The use of erythropoietin in blood boosting – Blood doping control – The testing programmes – Problems in drug detection – Blood testing in doping control – Problems with the supply of medicines Subject to IOC regulations: overthe- counter drugs (OTC) – prescription only medicines (POMs) – Controlled drugs (CDs). Reporting test results – Education

Learning outcomes

- 1. Understand training as performance based science
- 2. Explain different means and methods of various training
- 3. Prepare training schedule for various sports and games
- 4. Appraise types of periodization for performance development
- 5. Create various training facilities and plans for novice to advance performers

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.

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

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

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

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

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

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

Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2nd Edition, London: Jone and Bartlett Publications

Yograj Thani (2003), Sports Training, Delhi : Sports Publications

MPCC-302 SPORTS MEDICINE

Learning Objectives

- 1. The goal of a sports medicine is to help the student engage in exercise safely and effectively in order to achieve their training goals.
- 2. To provide knowledge about the causes of injuries.
- 3. To provide means or treatment for sports injuries and for rehabilitation of injuries.
- 4. To provide knowledge about the preventive measures of sports injuries.
- **5.** To aware the student about the treatment procedure of different kinds of injury.

UNIT I - Introduction

Meaning and Definition of Sports Medicine, Definition and Principles of Therapeutic Exercises.Injuries: Acute, Sub-acute, Chronic. Advantages and Disadvantages of PRICE, PRINCE therapy.Preventive, Curative and Rehabilitation Aspects of Sports Injuries.

UNIT II - Basic Rehabilitation and Therapeutic Modalities

Basic Rehabilitation: Bandages, Strapping and Tapping: Role of Sports Rehabilitation, Classification of Rehabilitation. Therapeutic Modalities –Cold Modalities (Cryotherapy)- Principles of Modalities –Ice Massag –Ice Packs – Ice Immersion and Cold Whirlpool –Cry Stretch –Chemical Packs –Ice Compression. Heat Modalities (Thermotherapy)- Effects of Heat Applications-Infrared Lamp-Moist Heat Packs –Paraffin Wax Bath- Contrast Bath

- Sona Bath. Electrotherapy - Basic Principles of Electrotherapy (Therapeutic Effects)-Electrical Stimulator –Short Wave Diathermy-Microwave Diathermy –Ultrasound-Neuromuscular Electrical Stimulator –Interferential Current – Transcutaneous Nervous Stimulator (TENS) -Ultraviolet Therapy-Lasser.

UNIT III - Spine Injuries and Exercise

Head, Neck and Spine Injuries: Causes, Presentational of Spinal Anomalies, Flexion, Compression, Hyperextension, Rotation Injuries. Spinal Range of Motion.Rehabilitation Exercises for Spinal Injuries- Head, Neck and Spine.Supporting and Aiding Techniques and Equipment for Head, Neck and Spine Injuries.

UNIT IV - Upper Extremity Injuries and Exercise

Upper Limps and Thorax Injuries - Shoulder: Sprain, Strain, Dislocation, and Strapping. Elbow: Sprain, Strain, Strapping. Wrist and Fingers: Sprain, Strain, Strapping. Thorax, Rib Fracture.Rehabilitation Exercise for Upper Extremity Injuries - Shoulder, Elbow, Wrist and Hands.Supporting and Aiding Techniques and Equipment for Upper and Thorax Injuries.

UNIT V - Lower Extremity Injuries and Exercise

Lower Limp and Abdomen Injuries: Hip: Adductor Strain, Dislocation, Strapping. Knee: Sprain, Strain, Strapping. Ankle: Sprain, Strain, Strapping. Abdomen: Abdominal Wall, Contusion, Abdominal Muscle Strain. Rehabilitation Exercise for Lower Extremities-Hip, Knee, Ankle, Foot and Abdomen.

Learning Outcomes

- At students will be successful in graduating and gaining employment in the field of athletic training.
- Identify, describe, and explain concepts associated with the domains of athletic training education.
- Communicate effectively in the oral and written form using evidence based practice principles.
- Learning treatment and rehabilitation programme by the students.
- Develop and defend clinical reasoning skills in the clinical education setting when interacting with injured athletes.

Note: PRACTICALS: Lab. Practical and visit to Physiotherapy centre to observe treatment procedure of sports injuries; data collection of sports injuries incidences, visit to TV centre etc. should be planned internally.

REFERENCES:

- 1. Christopher M.Norris (1993), Sports Injuries Diagnosis and Management for Physiotherapists. East Kilbride: Thomason Litho Ltd.
- 2. G.Vinod Kumar (2015). Sports Medicine and Injuries Management. Kongunadu Publications India Ltd.
- 3. James, A.Gould& George J. Davies. (1985). Physical Physical Therapy. Toronto: C.V.Mosby Company.
- 4. Morris B. Million (1984). Sports Injuries and Athletic Problem. New Delhi: Surject Publication.
- 5. Pande (1998). Sports Medicine. New Delhi: KhelShitya Kendra.

6. Practical: Anthropometric Measurements.

MPCC-303 HEALTH EDUCATION AND SPORTS NUTRITION

Learning Objectives

1. Identify dietary carbohydrate and protein sources, Identify proper hydration principles and discuss the importance of hydration for physical performance

- 2. Demonstrate knowledge of a healthy diet for physical performance and demonstrate an ability to utilize this knowledge to complete a self-diet critique.
- 3. Demonstrate an understanding of health and to develop determination and values of desirable body weight

Unit - I Health Education

Implication, General health care, Health Education. Concept, Dimensions, Spectrum and Health Determinants. Health instructions, Objectives and Principles of Health Education. Health Service and supervision.

Unit - II Health Problems in India

Communicable and Non Communicable Diseases, Prevailing Metabolic Disorders in India, Food and food related disease, Environmental Health hazards, Role of health education in schools Health Services, Objective of school health service, Role of government in protection of health – Health Policies.

Unit- III Hygiene and Health

Meaning of Hygiene, Types of Hygiene and Sanitation, Personal and dental Hygiene, Effect of Alcohol on Health, Effect of Tobacco on Health, Life Style Management, Stress Management and its related disorder, Drugs -its uses and abuses.

Unit – IV Introduction to Sports Nutrition

Meaning and Definition of Sports Nutrition, Role of nutrition in sports, Basic Nutrition guidelines, Mechanism of Hydration in body, Metabolism of macro and micronutrients, Role of macro and micronutrients on sports performance.

Unit - V Nutrition for specific sports

Physiological and Biochemical changes during specific sports, Associated Common nutritional problems; Guidelines specific to nutrition in specific sports; Identifying individual energy and other macronutrient requirements; Nutrient timing; Dietary periodisation; Supplement usage.

Specific Sports: Nutrition for popular team sports (Hockey, Football, Volleyball, Kabaddi and Cricket), Nutrition for Athletics, Racket Sports and Cyclic sports Athletics (Sprinters, middle and long distance, field events): Racket sports (Badminton, Tennis, Squash): Nutrition for Endurance Sports (Long distance Swimming, Cycling and Marathon): Nutrition for Weight-dependent and balance sports Strength and Combat sport (Wrestling, Weightlifting, Judo, Boxing, Taekwondo and Fencing): Nutrition for water sport and coordination sport

Learning outcomes

- 1. Restate the role of nutrients and caloric requirements
- 2. Sketch the basic classification, functions and utilization of nutrients.
- 3. Point out diet for various competitions and nutrient supplements for performance.
- 4. Evaluate the factors affects health and solutions for wellness.
- 5. Design caloric requirements for various sports and age groups.

References:

- 1. Bucher, Charles A. "Administration of Health and Physical Education Programme". Delbert, Oberteuffer, et. al." The School Health Education".
- 2. Ghosh, B.N. "Treaties of Hygiene and Public Health".
- 3. Hanlon, John J. "Principles of Public Health Administration" 2003. Turner, C.E. "The School Health and Health Education".
- 4. 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.
- 5. Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended. Angus and Robertson.
- 6. Terras S. (1994) Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons.
- 7. SatyanarayanaVaddepalli, Sports Nutrition and Weight Management (2015) Sports Publication, New Delhi
- 8. Fink, H. H., & Mikesky, A. E. (2017). Practical applications in sports nutrition. Jones & Bartlett Learning.
- 9. Eberle, S. G. (2013). Endurance Sports Nutrition, 3E. Human Kinetics.
- 10. Ryan, M. (2012). Sports nutrition for endurance athletes. Velo Press.
- 11. Campbell, B. (Ed.). (2013). Sports nutrition: enhancing athletic performance. CRC 23 Press.

MPEC-304 SPORTS ENGINEERING (Elective)

Learning Objectives

- 1. To understand the procedure of selection and use of various sports engineering and technologies.
- 2. To learn the mechanics of engineering materials in sports field
- 3. Help to improve knowledge about building and maintain playing surface.

UNIT - I Introduction to sports engineering and Technology

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

UNIT - II Mechanics of engineering materials

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

UNIT- III Sports Dynamics

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

UNIT- IV Building and Maintenance:

Sports Infrastructure- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Out-door Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels, etc.

Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms (M/F), Sound System (echo-free), Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people, Emergency provisions of lighting, fire and exits, Eco-friendly outer surrounding. Maintenance staff, financial consideration.

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

Learning outcomes

- 1. Plan, develop, communicate, implement, and evaluate technology-infused strategic plans.
- 2. Maintain and manage a variety of digital tools and resources for use in technology-rich sports environment
- 3. Design, develop, and implement technology-rich sports program that model of sports field and promote digital age best practices playing and assessment.
- 4. Find out how successful were the teachers' efforts in contributing to the realization of the fundamental objectives of sports.

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)

MPEC-305 PHYSICAL FITNESS AND WELLNESS (Elective)

Learning Objectives

- 1. Promote the knowledge of physical fitness and wellness
- 2. Create fitness awareness among youth, various health problems and its impacts
- 3. Able understand the importance of physical fitness and to create good health.

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.

Wellness-Meaning, definition and concept of wellness, Need and Importance of wellness, Factors affecting wellness, Environmental and Occupational health and wellness- wellness program me.

UNIT II – Nutrition

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

UNIT III - Aerobic and Anaerobic Exercise

Cardio respiratory Endurance Training: 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.

Anaerobic Exercise Resistance Training for Muscular Strength and Endurance principles of resistance training, proper body alignment, lifting techniques, 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 IV- Flexibility Exercise

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

UNIT -V- Psychological Health & Wellness

Psychological dimensions of Health, Stress management, Anger & its management, Yoga for stress management & Anger management. Physical activity for psychological Wellness Importance of Participation in regular Physical activity, Community recreation, Recreation for health & wellness, Leisure time Community health, Community health programme

Learning Outcome

- 1. Explain the history and philosophy of public physical fitness as well as its core values, concepts, and functions across the globe and in society.
- 2. Identify the methods, and tools of public health data collection, use, and analysis
- 3. Relate the underlying science of wellness and disease to opportunities for promoting and protecting health across the life course.
- 4. Identify the socio-economic, behavioural, biological, environmental, and other factors that impact physical fitness and contribute to health disparities.
- 5. Apply the principles of training and maintain a physical fitness.

Reference:

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surject Publication Delhi 1989. Dificore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35 Bedford row, London 1998
- Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992. Warner W.K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.

Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.

Emily R. Foster, Karyn Hartiger & Katherine A. Smith, Fitness Fun, Human Kinetics Publishers 2002.

Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd. 37, Sohe Square, London 1999

Robert Malt. 90 day fitness plan, D.K. publishing, Inc. 95, Madison Avenue, New York 2001

MPCC-401 INFORMATION & COMMUNICATION TECHNOLOGY (ICT) IN PHYSICAL EDUCATION

Learning Objectives

- 1. To know the necessity of information and communication technology in physical education
- 2. Helps to improves the computer assisted works in sports
- 3. Able use the applications of computer in sports

UNIT I – Communication & Classroom Interaction

Concept, Elements, Process & Types of Communication, Communication Barriers & Facilitators of communication, Communicative skills of English - Listening, Speaking, Reading & Writing

Concept & Importance of ICT Need of ICT in Education Scope of ICT: Teaching Learning Process, Publication Evaluation, Research and Administration Challenges in Integrating ICT in Physical Education.

UNIT II – Fundamentals of Computers

Characteristics, Types & Applications of Computers Hardware of Computer: Input,Output & Storage Devices Software of Computer: Concept & Types Computer Memory: Concept & Types

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

UNIT III – MS Office Applications

MS Word: Main Features & its Uses in Physical Education

MS Excel: Main Features & its Applications in Physical Education

MS Access: Creating a Database, Creating a Table, Queries, Forms &

Reports on Tables and its Uses in Physical Education

MS Power Point: Preparation of Slides with Multimedia Effects

MS Publisher: Newsletter & Brochure

UNIT IV – ICT Integration in Teaching Learning Process

Approaches to Integrating ICT in Teaching Learning Process

Project Based Learning (PBL)

Co-Operative Learning

Collaborative Learning

ICT and Constructivism: A Pedagogical Dimension

UNIT V - E-Learning & Web Based Learning

E-Learning

Web Based Learning

Visual Classroom

Course Learning Outcome

- 1. Understand concept of information and communication technology in physical education field
- 2. Analyse sporting data of various types via astute use of statistical packages.
- 3. Practice mathematics, statistics, information technology in sport technology related problems.
- 4. Offer Hands on Knowledge in information and communication Technology

REFERENCES:

B. Ram, New Age International Publication, Computer Fundamental, Third Edition-2006

Brain under IDG Book. India (p) Ltd Teach Yourself Office 2000, Fourth Edition-2001

Douglas E. Comer, The Internet Book, Purdue University, West Lafayette in 2005

Heidi Steel Low price Edition, Microsoft Office Word 2003-2004

ITL Education Solution Ltd. Introduction to information Technology, Research and Development Wing-2006

Pradeep K. Sinha & Priti; Sinha, Foundations computing BPB Publications -2006.

Rebecca Bridges Altman Peach pit Press, Power point for window, 1999

Sanjay Saxena, Vikas Publication House, Pvt. Ltd. Microsoft Office for ever one, Second Edition-2006

MPCC-402 SPORTS PSYCHOLOGY AND SPORTS SOCIOLOGY

Learning Objectives:

After studying this paper the student teachers will be able to:

- 1. Know the introduction to sports psychology.
- 2. Understand the personality traits.
- 3. Understand the anxiety, stress and aggression.
- 4. Know the psychological tests and its applications.
- 5. Know the introduction to Sports Sociology and its concepts.

UNIT I – Introduction

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

UNIT II – Motivation

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

UNIT III – Goal Setting

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

UNIT IV – Sports Sociology

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

UNIT V – Group Cohesion

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

Learning outcome:

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

References:

Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT) Catalogue of Tests, New Delhi: National Council of Educational Research and Training Publication.

Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT) Catalogue of Test, New Delhi: National Council of Educational Research and Training Publication.

Jain. (2002), Sports Sociology, Heal Sahety Kendre Publishers.

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

John D Lauther (2000) Psychology of Coaching. Ner Jersy: Prenticce Hall Inc.

John D. Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.

Miroslaw Vauks & Bryant Cratty (1999). Psychology and the Superior Athlete. London: The Macmillan Co.

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

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

Robert N. Singer. (1989) The Psychology Domain Movement Behaviour. Philadelphia: Lea and Febiger.

Thelma Horn. (2002). Advances in Sports Psychology. Human Kinetic.

Whiting, K, Karman.,. Hendry L.B & Jones M.G. (1999) Personality and Performance in Physical Education and Sports. London: Hendry Kimpton Publishers.

MPCC-403 DISSERTATION

- 1. A candidate shall have dissertation for M.P.Ed. IV Semester and must submit his/her Synopsis and get it approved by the Head of Department on the recommendation of D.R.C. (Departmental Research Committee).
- 2. A candidate selecting dissertation must submit his/her dissertation not less than one week before the beginning of the IVth Semester Examination.
- 3. The candidate has to face the Viva-Voce conducted by DRC.

MPEC-404 VALUE AND ENVIRONMENTAL EDUCATION (Elective)

Learning Objectives

1. Promote the knowledge of value and environmental education.

2. Create health awareness among youth, various health problems and its impacts

3. Able understand the importance of environment and to create good environment

UNIT I – Introduction to Value Education.

Values: Meaning, Definition, Concepts of Values. Value Education: Need, Importance and Objectives. Moral

Values: Need and Theories of Values. Classification of Values: Basic Values of Religion, Classification of Values.

UNIT II – Value Systems

Meaning and Definition, Personal and Communal Values, Consistency, Internally consistent, internally inconsistent,

Judging Value System, Commitment, Commitment to values.

UNIT-III – Environmental Education

Definition, Scope, Need and Importance of environmental studies., Concept of environmental education, Historical

background of environmental education, Celebration of various days in relation with environment, Plastic recycling

& prohibition of plastic bag / cover, Role of school in environmental conservation and sustainable development,

Pollution free ecosystem.

UNIT - IV Rural Sanitation and Urban Health

Rural Health Problems, Causes of Rural Health Problems, Points to be kept in Mind for improvement of Rural

Sanitation, Urban Health Problems, Process of Urban Health, Services of Urban Area, Suggested Education

Activity, Services on Urban Slum Area, Sanitation at Fairs & Festivals, Mass Education.

UNIT - V Natural Resources and related environmental issues:

Water resources, food resources and Land resources, Definition, effects and control measures of: Air Pollution,

Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution Management of environment and Govt. policies,

Role of pollution control board.

Learning Outcome

1. Explain the role of values, concepts, and functions across the globe and in society.

2. Able to explain Value Education- Goal Setting- Self Efficacy and Self Esteem

3 Apply the principles of project implementation, including planning, assessment, and evaluation in organizational

and community initiatives.

Reference:

38

Miller T.G. Jr., Environmental Science (Wadsworth Publishing Co.)

Odum, E.P. Fundamentals of Ecology (U.S.A.: W.B. Saunders Co.) 1971.

Rao, M.N. & Datta, A.K. Waste Water Treatment (Oxford & IBH Publication Co. Pvt. Ltd.)

1987

Townsend C. and others, Essentials of Ecology (Black well Science)

Heywood, V.H. and Watson V.M., Global biodiversity Assessment (U.K.: Cambridge University Press), 1995.

Jadhav, H. and Bhosale, V.M. Environmental Protection and Laws (Delhi: Himalaya Pub. House), 1995.

Mc Kinney, M.L. and Schoel, R.M. Environmental Science System and Solution (Web enhanced Ed.) 1996.

Miller T.G. Jr., Environmental Science (Wadsworth Publishing Co.)

MPEC-405 EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION AND SPORTS (Elective)

Learning Objectives:

- Introduce Education Technology and its various aspects to the learner
- Give an overview of approach systems in Physical Education and Communication
- Introduce various instructional designs and use of audio visual media
- Opening the learners mind towards new horizons in Educational technology

UNIT I – Nature and Scope

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

UNIT III- Instructional Design

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

UNIT IV - Audio Visual Media in Physical Education

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

UNIT V – New Horizons of Educational Technology

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

Learning Outcome:

- Comprehend various aspects of Education Technology
- Understanding of the Systems Approach and communication
- Able to design instructions and incorporate audio visual media in teaching
- Present new ideas in teaching 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

Essentials of Educational Technology, Madan Lal, Anmol Publications

K. Sampath, A. Pannirselvam and S. Santhanam. Introduction to Educational Technology (New Delhi: Sterling Publishers Pvt. Ltd.): 1981.

Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jalandhar, Sterling Publishers Pvt. Ltd.), 1982

Kozman, Cassidy and kJackson. Methods in Physical Education (W.B. Saunders Company, Philadelphia and London),

SEMESTER-I

PRACTICUM COURSE

MPPC- 106 TRACK AND FIELD I: All RUNNING EVENTS AND RELAY

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

MPPC- 107 Laboratory Practical -I

Test and Measurement- Total - Any 8 laboratory tests Practical classes to be designed based on the theory paper in the above subject

MPPC- 108 YOGA/ AEROBICS

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

Aerobics

- Rhythmic Aerobics dance
- Low impact aerobics
- High impact aerobics
- Aerobics kick boxing

Moves

- March single, basics, side to side alternate, turn s/a ,double side to side, step touch, grapevine, knee up, leg curl, kick front, toe touch, kick side, side lunge, over the top, back lunge, straddle, kick front, travel s 11. kick side, corner, heel to reft, shape, 'e' shape, shape w, shape, repeater left mode.
- Warm up and cool down.
- Being successful in exercise and adaptation to aerobic workout

MPCC-109 - 117: GAME OF SPECIALIZATION - I

(As offered by the department) Game of Specialization- I

General Course Content

Odd Semester

- 1. Fundamental Skills- Lead Up Games Warm-up and Warm down Technical Training
- 2. General Conditioning & Fitness, Safety, Injury Prevention and Emergency Response
- 3. Layout of Playfield with all Measurements, Equipment and its specifications
- 4. International, National and State Level Organizations and Trophies.

SEMESTER-II

PRACTICUM COURSE

MPPC- 206- TRACK AND FIELD II: JUMPING EVENTS & HURDLES

Fundamental Techniques: Broad Jump, Triple Jump, High Jump and Pole vault And Hurdles Advanced techniques in Jumps and Drills, Laying out of Jumping Sectors

MPPC-207 LABORATORY PRACTICAL- II

Sports Biomechanics & Kinesiology(Practical classes to be designed based on the theory paper in the above subject)

MPPC-208- TEACHING LESSONS OF INDIGENIOUS ACTIVITIES AND SPORTS

The students of M.P.Ed – II Semester need to develop proficiency in taking teaching classes in indigenous activities and sports under school situation. In view of this, the students shall be provided with such 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.

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.

MPPC-209-217 TEACHING, COACHING AND OFFICIATING IN GAME SPECIALIZATION-I

The students of M.P.Ed – need to develop proficiency in teaching, coaching and officiating lessons as per selected game of specialization. In view of this, the students shall be provided with experience in teaching, advance training and coaching and advance mechanism of officiating in their selected game. 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.

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 to be covered progressively.

- 1. Basic coaching principles, talent identification, combining General and Specific Conditioning
- 2. Advanced Skills- Lead Up Games Tactics and Strategies, Selection of Players and teams
- 3. Officiating and Scoring –Online & Offline
- 4. Basic coaching principles, talent identification, combining General and Specific Conditioning
- 5. Designing Coaching programs with and without coaching aids
- 6. Planning, Organization and Management of Tournaments

SEMESTER - III PRACTICUM COURSE

MPPC- 306 TRACK AND FIELD -III

Throwing events and Gymnastics

Throwing Events

- Fundamental Techniques- Shot Put, Discus, Javelin and Hammer
- Advanced techniques in throws and their drills. Laying out of the throwing sectors.
- Fundamental Techniques- Gymnastics training and drills in Gymnastics

MPPC-307 LABORATORY PRACTICAL - III

Sports Medicine and Physiotherapy (Practical classes to be designed based on the theory paper in the above subject)

MPPC-308: INTERNSHIP

The students of M.P.Ed – III Semester need to be develop proficiency in taking coaching lesson in selected game discipline. In view of this, the students shall be attached to the nearby schools for internship/ coaching practice in any of the games offered by this department.

MPPC-309 -317 GAME OF SPECIALIZATION - II

(As offered by the department)

The Candidate has choice to select any one of the following games as the Specialization – II (Second best) in Third Semester.

- 1. Fundamental Skills- Lead Up Games Warm-up and Warm down Technical Training
- 2. General Conditioning & Fitness, Safety, Injury Prevention and Emergency Response
- 3. Layout of Playfield with all Measurements, Equipment and its specifications
- 4. International, National and State Level Organizations and Trophies.

SEMESTER - IV PRACTICUM COURSE

MPPC- 406 TRACK AND FIELD - IV COMBINED EVENTS

- Pentathlon- Order of events, Heptathlon Order of events, Decathlon Order of events
- Training for combined events.

MPPC-407 LABORATORY PRACTICAL - IV

Exercise Physiology & Sports Psychology (5 tests each) (Practical classes to be designed based on the theory paper in the above subject).

MPPC-408 OFFICIATING LESSONS OF TRACK AND FIELD

The students of M.P.Ed – IV Semester need to develop proficiency in taking officiating lesson in Track & Field. In view of this, the students shall be provided with advance mechanism of officiating in Track & Field. 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.

MPPC-409-417 TEACHING, COACHING AND OFFICIATING IN GAME SPECIALIZATION-II

The students of M.P.Ed – need to develop proficiency in teaching, coaching and officiating lessons as per selected game of specialization. In view of this, the students shall be provided with experience in teaching, advance training and coaching and advance mechanism of officiating in their selected game. 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.

. 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 to be covered progressively.

Note: Where ever details of any activities are not mentioned, it is expected to elaborate skills by the competent bodies of local Universities/ Autonomous Colleges.

- 1. Basic coaching principles, talent identification, combining General and Specific Conditioning
- 2. Advanced Skills- Lead Up Games Tactics and Strategies, Selection of Players and teams
- 3. Officiating and Scoring –Online & Offline.
- 4. Basic coaching principles, talent identification, combining General and Specific Conditioning
- 5. Designing Coaching programs with and without coaching aids.
- **6.** Planning, Organization and Management of Tournaments