YOGI VEMANA UNIVERSITY

VEMANAPURAM, KADAPA, Y.S.R Dist., A.P-516 005



CHOICE BASED CREDIT SYSTEM M.P.Ed., TWO YEAR COURSE

DEPARTMENT OF PHYSICAL EDUCATION & SPORTS SCIENCES YOGI VEMANA UNIVERSITY KADAPA,A.P.

Semester – I

	Part A : Theoretical Course	•				
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
		Core Cou	irse			
MPCC-101	Research Process in Physical Education & Sports Sciences	3	3	25	75	100
MPCC-102	Physiology of Exercise	3	3	25	75	100
MPCC-103	Applied Statistics in Physical Education & Sports	3	3	25	75	100
	Elective Course (Anyone)					
MPEC-111	Fitness and Life Style Management	3	3	25	75	100
MPEC-112	Education Technology in Physical Education					
	Part- B Practical Course					
MPPC-121	Track and Field Running Events (compulsory)	6	3	25	75	100
	Any one of the following i.e. Gymnastics/ Swimming / Yoga					
MPPC-122	Games Specialization – Badminton/Ball badminton / Baseball / Basketball / Cricket/ Football/ Handball /Hockey/ Kabaddi / Kho-Kho / Softball/ Table Tennis / Tennis / Volleyball (Any two games – One Indigenous & one ball game)	6	3	25	75	100
MPPC-123	Teaching Lessons' Coaching	6	3	25	75	100
11111 0-120	lessons in the events of MPPC- 121 and 122.	0	5		15	100
MPPC-124	Class room Teaching Lessons on theory of different Sports.	6	3	25	75	100
	Total	36	24	200	600	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	-	Π
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	Part A : Th	eoretical	Course			
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
		Core Co	ourse			
MPCC-201	Yogic Sciences	3	3	25	75	100
MPCC-202	Sports Biomechanics and Kinesiology	3	3	25	75	100
MPCC-203	Tests, Measurement and Evaluation in Physical Education	3	3	25	75	100
	Open Elective Course					
MPEC-211	Open elective / Non-Core Basic Concepts of Yoga	3	3	25	75	100
	Part- B Practical Course					
MPPC-221	Track and Field Jumping and hurdle Events (compulsory) Any one of the following	6	3	25	75	100
	i.e. Gymnastics/ Swimming /Yoga					
MPPC-222	Laboratory Practical in Physiology of Exercise and Sports Bio Mechanics & Kinesiology (Two practical in each subject)	6	3	25	75	100
MPPC-223	Any two of the following activities: Aerobics / Taekwondo / Shooting / Archery.	6	3	25	75	100
MPPC-224	Adventure Activities / Mass demonstration Activities(Any One)	6	3	25	75	100
	Total	26	24	200	600	800

	Part A Course	: Theore	etical			
Course Code	Title of the Papers	Total Hours Core Co	Credit ourse	Internal Marks	External Marks	Total Marks
MPCC-301	Scientific Principles of Sports Training	3	3	25	75	100
MPCC-302	Sports Medicine, Athletic Care and Rehabilitation	3	3	25	75	100
MPCC-303	Sports Psychology and Sports Sociology	3	3	25	75	100
	Open Elective Course					
MPEC-311	Open Elective / Non-Core Fitness and Wellness	3	3	25	75	100
	Part- B Practical Course			· · · · · · · · · · · · · · · · · · ·		
MPPC-321	Track and Field: Throwing Events (Compulsory). Field test for Fitness &	6	3	25	75	100
MPPC-322	Skills Laboratory : Sports Psychology and Physiotherapy lab (Any two practical in each subject)	6	3	25	75	100
MPPC-323	Games Specialization – Any two games other than two games opted in first semester Games Specialization – Badminton/Ball badminton / Baseball / Basketball / Cricket/ Football/ Handball /Hockey/ Kabaddi / Kho- Kho / Softball/ Table Tennis / Tennis / Volleyball	6	3	25	75	100
MPPC-324	Teaching Lessons: Coaching lessons in the events of MPPC- 321 and 323.	6	3	25	75	100
	Total	36	24	200	600	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

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 Co	urse			
MPCC-401	Information & Communication Technology (ICT) in Physical Education	3	3	25	75	100
MPCC-402	Health Education and Sports Nutrition	3	3	25	75	100
MPCC-403	Sports Technology	3	3	25	75	100
	Elective Course (Anyone)		L	<u> </u>		-
MPEC-411 MPEC-412	Sports Management and Curriculum Designs in Physical Education Dissertation / Project work / Event Management	3	3	25	75	100
	Part- B Practical Course					
MPPC-421	Track and Field – Combined events Training methods: Circuit, Interval & Resistance Trainings	6	3	25	75	100

MPPC-422	Game of Specialization –	6	3	25	75	100
	Practical Skills - any one opted					
	from four games in previous					
	semesters - Record & Viva-					
	voce.					
MPPC-423	Officiating in Track and Field /	6	3	25	75	100
	Gymnastics / Swimming/Yoga					
MPPC-424	Coaching lessons in Game of	6	3	25	75	100
	Specialization - Internship					
	Total	36	24	200	600	800
Grand '	Fotal for Four Semesters	144	96	800	2400	3200

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.

SCHEME OF EXAMINATION

SEMESTER – I

Paper	Subject	Internal	External	Total
	THEORY (300)			
MPCC-101	Research Process in Physical Education & Sports Sciences	25	75	100
MPCC-102	Physiology of Exercise	25	75	100
MPCC-103	Applied Statistics in Physical Education & Sports	25	75	100
	ELECTIVE (100)			
MPEC-111	Fitness and Life Style Management			
MPEC-112	Education Technology in Physical Education	25	75	100
I	PRACTICAL (400)		I	
MPPC-121	Track and Field Running Events (compulsory) Any one of the following i.e. Gymnastics/ Swimming / Yoga	25	75	100

MPPC-122	Game of Specialization – Badminton / Ball	25	75	100
	badminton/Baseball / Basketball/Cricket/ Football/			
	Handball /Hockey/ Kabaddi / Kho-Kho / Softball/			
	Table Tennis / Tennis / Volleyball			
	(Any two games – One Indigenous & one ball game)			
MPPC-123	Teaching Lessons: Coaching lessons in the events of	25	75	100
	MPPC- 121 and 122.			
MPPC-124	Class room Teaching Lessons on theory of different	25	75	100
	Sports & Games			
	Total	200	600	800

SEMESTER – II

Paper	Subject	Internal	External	Total
	THEORY (300)			
MPCC-201	Yogic Sciences	25	75	100
MPCC-202	Sports Biomechanics and Kinesiology	25	75	100
MPCC-203	Tests Measurement and Evaluation in Physical	25	75	100
	Education		10	100
	OPEN ELECTIVE (100)			
MPEC-211	Open Elective / Non-Core	25	75	100
	Basic Concepts of Yoga			
	PRACTICAL (400)			
MPPC-221	Track and Field Jumping and hurdle Events (compulsory)	25	75	100
	Any one of the following i.e. Gymnastics/ Swimming / Yoga			
MPPC-222	Laboratory Practical in Physiology of Exercise and	25	75	100
	Bio Mechanics & Kinesiology			
	(Two practical in each subject)			
MPPC-223	Any two of the following activities:	25	75	100
	Aerobics / Taekwondo / Shooting / Archery.			
MPPC-224	Any one of the following activities:	25	75	100
	Adventure Activities / Mass demonstration Activities			
	Total	200	600	800

Paper	Subject	Internal	External	Total
	THEORY (300)			
MPCC-301	Scientific Principles of Sports Training	25	75	100
MPCC-302	Sports Medicine, Athletic Care and Rehabilitation	25	75	100
MPCC-303	Sports Psychology and Sports Sociology	25	75	100
	OPEN ELECTIVE (100)			
MPEC-311	Open Elective/Non-Core	25	75	100
	Fitness and Wellness			
	PRACTICAL (400)		I	
MPPC-321	Track and Field: Throwing Events.	25	75	100
	Field test for Fitness & Skills			
MPPC-322	Laboratory :	25	75	100
	Sports Psychology and Physiotherapy lab			
	(Any two practical in each subject)			
MPPC-323	Games Specialization –	25	75	100
	Any two games other than two games opted in first			
	semester			
	Badminton / Ball badminton/Baseball /			
	Basketball/Cricket/ Football/ Handball /Hockey/			
	Kabaddi / Kho-Kho / Softball/ Table Tennis / Tennis /			
	Volleyball			
MPPC-324	Teaching Lessons:	25	75	100
	Coaching lessons in the events of MPPC- 321 and 323.			
	Total	200	600	800

SEMESTER – III

SEMESTER – IV

Paper	Subject	Internal	External	Total
	THEORY (300)			
MPCC-401	Information & Communication Technology (ICT) in	25	75	100
	Physical Education			
MPCC-402	Health Education and Sports Nutrition	25	75	100
MPCC-403	Sports Technology	25	75	100

	ELECTIVE (100)			
MPEC-411	Sports Management and Curriculum Designs in Physical Education			
MPEC-412	Dissertation / Project work / Event Management	25	75	100

	PRACTICAL (400)			
MPPC-421	Track and Field – Combined events	25	75	100
	Training methods: Circuit, Interval, Fartlek,			
	Plyometric & Resistance Trainings			
MPPC-422	Game Specialization – Practical Skills - any one opted	25	75	100
	from four games in previous semesters - Record &			
	Viva-voce.			
MPPC-423	Officiating in Track and Field / Gymnastics /	25	75	100
	Swimming/Yoga			
MPPC-424	Coaching lessons in Game of Specialization	25	75	100
	(Internship)			
	Total	200	600	800

Theory Syllabus

Semester – I

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

Unit-1 Introduction

Meaning, Definition, Nature, Scope and importance of research in Physical Education. Classification of Research: Basic, Applied and Action Research, Location of Research Problem, Criteria for selection of a Research problem and Qualities of a good researcher.

Unit-2 Methods of Research

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

Unit-3 Experimental Research

Experimental Research: Meaning, Nature and Importance, Variable:

Definition, Types of Variables, Experimental Design: Single Group Design, Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design and Factorial Design.

Unit-4 Sampling

Meaning and Definition of Sample and Population. Types of Sampling:

Probability Methods: Systematic Sampling, Cluster sampling, Stratified Sampling, Area Sampling and Multistage Sampling. Non- Probability Methods: Convenience Sampling, Judgment Sampling and Quota Sampling.

Unit-5 Research Proposal and Report

Chaptalization of Thesis / Dissertation: Front Materials, Body of Thesis, Back materials, Method of Writing Research proposal, Thesis / Dissertation: Method of writing abstract, full paper for presenting in a conference, publishing in journals, Mechanics of writing Research Report, Footnote and Bibliography.

References:

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- 2) Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
- 3) Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, Londonl Routledge Press
- 4) Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics;
- 5) Sreenivasan & KRS Reddy(2013) Research Methods in Physical Education;Swastic Publications,New Delhi
- Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar Pathippagam
- 7) Rothstain, A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc
- 8) Subramanian, R, Thirumalai Kumar S & Arumugam C (2010) Research Methods in Health, Physical Education and Sports, New Delhi; Friends Publication
- 9) Moorthy A. M. Research Processes in Physical Education (2010); Friend Publications

MPCC-102: PHYSIOLOGY OF EXERCISE

Unit-1 Introduction, Skeletal Muscles and Exercise

Definition of Physiology, Exercise Physiology and importance of Exercise Physiology in sports. Macro & Micro Structure of the Skeletal Muscle, Types of Muscle fibers and their characteristics, Chemical Composition, Chemistry of Muscular Contraction, Sliding Filament theory of Muscular Contraction. Muscle Tone, Heat Production in the Muscle and Effects of exercise and training on the muscular system.

Unit-2 Cardiovascular System and Exercise

Structure of the Heart, Heart Valves and Direction of the Blood Flow, Conduction System of the Heart, cardiac Circulation, Cardiac Cycle, Heart Rate, Stroke Volume, Cardiac Output and Heart Rate and stroke Volume interactions. Effects of exercise and training on Cardio vascular system.

Unit-3 Respiratory System and Exercise

External and Internal Respiration, Mechanism of Respiration, Respiratory Muscles, Minute Ventilation, Ventilation at Rest and During Exercise. Exchange of Gases in Lungs and Tissues, Control of Ventilation, Ventilation and Anaerobic Threshold, Oxygen recovery, Lung Volumes and Capacities, Anatomical Dead Space. Effects of exercise and training on respiratory system.

Unit-4 Metabolism and Energy Transfer

Metabolism: Definition and types- Anabolism and Catabolism, Anaerobic Metabolism: ATP- PC or Phosphagen System, Anaerobic Glycolysis, Aerobic Metabolism: Aerobic Glycolysis, Fat Metabolism. Metabolism during Rest and Exercise (High Intensity and Long Duration Exercises)

Unit-5 Climatic conditions and Ergogenic aids

Variations in Temperature and Humidity,-Thermoregulation, -Sports performance in hot, Cool and humid Climate, high altitude, acclimatization and circadian rhythm. Ergogenic Aids: Pharmacological, Hormonal, Physiological aspects and their effects on sports performance. Doping and WADA.

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

References:

- 1) Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugar Pathipagam.
- 2) Beotra Alka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
- 3) Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
- 4) David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
- 5) Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education 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.
- 7) 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
- 9) Performance. Philadelphia: Lippincott Williams and Wilkins Company. John Bullock. et.al., Physiology, 4th Ed.Newyork

MPCC-103: APPLIED STATICTICS IN PHYSICAL EDUCATION AND SPORTS

UNIT I – Introduction

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

UNIT II – Measures of Central Tendency

Construction of frequency table. Meaning, Definition, Importance, Computation, Advantages and Disadvantages of Measures of central tendency – Mean, median and mode.

UNIT III – Measures of Dispersions and Scales

Meaning, Purpose, Calculation and Advantages of Range, Quartile Deviation, Mean Deviation, Standard Deviation, Probable Error. Scales: Meaning, Purpose, Computation and advantages of T scale; 6 Sigma scale, Z Scale and Hull scale.

UNIT IV – Probability Distributions and Graphs

Normal Curve. Principles of normal curve, Properties of normal curve. Meaning of probability,—. Divergence from normality. Skewness and Kurtosis. Graphical Representations in Statistics: Line diagram, Bar diagram, Histogram, Frequency Polygon, Ogive Curve and Pie Diagram.

UNIT V – Inferential and Comparative Statistics

Tests of significance, "T" test, "F" ratio, chi square test, level of confidence and interpretation of data. Meaning of correlation, co-efficient of correlation, calculation of coefficient of correlation by the product moment method and rank difference method. Concept of ANOVA and ANCOVA.

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

- 1. 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.
- 3. Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics;
- 4. Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi
- 5. Rothstain A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs:Prentice Hall, Inc
- 6. Sivaramakrishnan. S. (2006) Statistics for Physical Education, Delhi; Friends Publication
- 7. Thirumalaisamy (1998), Statistics in Physical Education, Karaikudi, Senthilkumar Publications.

MPEC-111: FITNESS AND LIFE STYLE MANAGEMENT (ELECTIVE)

Unit-1

Concept of Fitness Definition and meaning of Fitness, Different Kinds of Fitness, Physical Fitness, Skill Related and Health Related Physical Fitness. Relationship of fitness and health fitness to develop health of an individual, Wellness revolution: Life style and Health fitness relationship, Meaning of active life style, Physical Inactivity and associated health risks Diabetes, Hypertension, Atherosclerosis, Arthritis

Unit - 2

Meaning of Health, Health related fitness components: Body Compositions, Cardio Vascular Fitness, Muscular Endurance, strength, flexibility, benefits of health related fitness. Benefits of Health fitness Components: Meaning of health related and Physical fitness components Exercise protocols for the health fitness components, Body Composition, concepts of body weight and components of body weight, Assessment of body composition, Obesity, Meaning of Obesity and risk factors, of Obesity and over fatness- Muscular and joint flexibility-risk factors Associated with poor muscular and Joint flexibility.

Unit-3

Nutrition: base for human performance-Carbohydrates, Fats and Proteins. Recommended intake for Normal persons and exercising individuals. Vitamins, Minerals and Water. Osteoporosis and Calcium, Minerals and performance. Optimal nutrition for exercise, Energy value of different important foods, Food Pyramid, fluid replacement before, during and after exercise for temperature regulation and injury prevention, carbohydrates and electrolytes during exercise.

Unit-4

Stress-meaning and types of stress, Physical and mental stress-Harmful effects of overtraining and excessive exercise on health, -mental stress and painful effects of mental stress on health. Anxiety, Depression, insomnia, Compulsive obsessive behaviors, Stress relief through exercise and stress management protocols.

Unit-5

Health behavior, Self-efficacy on health behavior, Behavioral modification for wellness, Social support and health of an individual, Life style and other related aspects of activity during childhood. Facts on childhood obesity and activity.

References:

- 1. Lifestyle management in Health and Social care, Merinda Thew and Jim McKenna, Blackwell Publishing. United Kingdom.
- 2. Predicting Health behavior, Mark Connor and Paul Norman, Open University Press, Buckingham, UK.
- 3. Health Behavior and health education: Theory, research and Practice, Karen Glanz, Barbara Rimer, Viswanath, John wiley and sons, USA. (Free pdf book)
- 4. Human Body Composition, Steven B Heymstead, Timothy Lohan, Zimian Wang, Scott B Going, Human Kinetics, USA.
- 5. Science of Flexibility, Michael J Alter, Human Kinetics, USA.
- 6. Applied Body Composition Assessment, Vivian H Heyward, Dale R Wagner, Human Kinetics, USA.
- 7. Coping with life stress-the Indian experience, Meena Hariharan, Amazon Books.
- 8. Stress Management- a Wellness approach, Nanette E Tummers, Human Kinetics, USA.
- 9. Wellness Workbook: How to achieve enduring health and vitality, John W Travis and Regina S Ryan, Crown publishing, New York.
- 10. The Soul of Wellness: 12 holistic principles for achieving a healthy body, mind, heart and spirit, Rajiv Parti, Select book incorporation, New York.
- 11. Wellness coaching for lasting Lifestyle change, Michael Arloski, Whole person associates, Duluth, USA.
- 12. Staying Healthy with Nutrition: The complete guide to Diet and Nutritional medicine, Elson M Has,.

MPEC-112: EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION (ELECTIVE)

Unit I – Nature and Scope

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

Unit II – Systems Approach to Physical Education and Communication

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

Unit III- Instructional Design

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

Unit IV – Audio Visual Media in Physical Education

Audio-visual media: meaning, importance and various forms Audio/Radio: Broadcast and audio recordings,- strengths and Limitations, criteria for selection of instructional units, script writing, preproduction, 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 (Satellite Instructional, Television, and Experiment) 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. 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 Educational Technology in Physical Education.

- 1) Amita Bhardwaj(2003), New Media of Educational Planning". Sarup of Sons, New Delhi.
- 2) Bhatia and Bhatia(1959), The Principles and Methods of Teaching (New Delhi : Doaba House).
- 3) Communication and Education, D. N. Dasgupta, Pointer Publishers
- 4) O. P. Dahama, O. P. Bhatnagar, Oxford, IBH Publishing company, New Delhi Education and Communication for development.
- 5) Madan Lal, Anmol Publications, Essentials of Educational Technology.
- 6) K. Sampath, A. Pannirselvam and S. Santhanam(1981), Introduction to Educational Technology (New Delhi: Sterling Publishers Pvt. Ltd.).
- 7) Kochar S.K(1982), Methods and Techniques of Teaching (New Delhi, Jalandhar, Sterling Publishers Pvt. Ltd.).
- 8) Kozman, Cassidy and Jackson(1952) Methods in Physical Education (W.B. Saunders Company, Philadelphia and London).

Semester-II

MPCC-201 : YOGIC SCIENCES

Unit I – Introduction

Meaning, Definition, Scope and importance of Yoga, Essentials For Yoga Practices; Age, Diet, Stomach Emptying bowels, bathing, Clothes, Sun Bathing, No Straining, Place, Time, Awareness, Sequence. Contra indication, Counter Pose, Inverted Asana, Breathing, and Relaxation. Basic Systems of Yoga and their importance - Astanga Yoga: Yama, Niyama, Aasna, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi. Streams of Yoga: Hatha Yoga, Raja Yoga, Karma Yoga, Bhakti Yoga and Gnana Yoga.

Unit II – Aasanas , Kriyas, Bandhas and Mudras

Asana: Definition, Classification: Sitting, Standing, Lying, & Inverted ASanas. Benefits of Asanas, Asanas and Loosening Exercises, Surya Namaskara- Description and Benefits. Kriyas : Meaning, Neti, Nauli, Dhauti, Kapalabhati, Trataka, Bhastrika and their Benefits. Bandhas: Jalandhara, , Udyana, Mula and their Importance. Mudras: Definition, Purpose, Benefits of Hastamudras, Asamyuktahasta, Samyuktahasta, Manamudra, Kayamudra, Bandha Mudra, Adharamudra.

Unit III – **Pranayama :** Definition, Tradition, Types , Importance & Impact of Pranayama on naadis. Chakras: Definition and types, Effects of Pranayama on major chakras.

Unit IV – Meditation: Meaning, Definition and Benefits. Types of Meditation: Passive, active, Saguna and Nirguna Meditation. Meditation and Health, Meditation and stress Management.

Unit V – Yoga and Sports

Effects of Yoga on Physiological Systems: Respiratory, Circulatory, Digestive, Nervous and Excretory Systems. Place of Yoga as Supplementary, Compensatory, Regenerative and Yogic Power. Role of Yoga in Sports: Promotion of Mental Wellbeing, Self-Actualization, Concentration, Suppression of Anxiety and depression. Role of Yoga in Making out a Sports Person.

Note: Laboratory Practicals be designed and arranged internally.

- 1) George Feuerstein, (1975). Text Book of Yoga. London: Motilal Bansaridass Publishers (P) Ltd.
- 2) Gore, (1990), Anatomy and Physiology of Yogac Practices.
- 3) Lonavata: Kanchan Prashant. Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter House book.
- 4) Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.
- 5) Karbelkar N.V.(1993) Patanjal Yogasutra Bhashya (Marathi Edition) Amravati: Hanuman Vyayam Prasarak Mandal
- 6) Kenghe. C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): Historical Background, Varanasi.
- 7) Bharata Manishai. Kuvalyananada Swami & S.L. Vinekar, (1963), Yogic Therapy Basic Principles and Methods. New Delhi: Govt. of India, Central Health Education and Bureau.
- 8) Moorthy A.M. & Alagesan. S. (2004) Yoga Therapy. Coimbatore: Teachers Publication House.
- 9) Swami Kuvalayanda, (1998), Asanas. Lonavala: Kaivalyadhama.
- 10) Swami Satyananada Sarasvati. (1989), Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga.
- 11) Swami Satyananda Saraswathi. (1984), Kundalini and Tantra, Bihar: Yoga Publications Trust.
- 12) Swami Sivananda, (1971), The Science of Pranayama. Chennai: A Divine Life Society Publication.
- 13) Thirumalai Kumar. S and Indira. S (2011) Yoga in Your Life, Chennai: The Parkar Publication.
- 14) Tiwari O.P. (1998), Asanas-Why and How. Lonavala: Kaivalyadham.
- 15) Satya Murty.K, *Elements of Yoga*, Vedadri Brahma Gnana Kendra, Pedakakani, Guntur, India, (2015)

MPCC-202: SPORTS BIOMECHANICS AND KINSESIOLOGY

UNIT I – Introduction

Meaning, nature, importance and scope of applied kinesiology and Sports Biomechanics. Meaning of Axis and Planes, Dynamics, Statics, Kinematics, Kinetics, gravity, Center of Gravity, Line of gravity and base of the body. Vectors and Scalars.

UNIT II – Muscle Action

Origin, Insertion and action of Muscles around shoulder, Elbow, Hip, Knee and muscles of Abdomen & Trunk.

UNIT III – Motion and Force

Meaning and definition of Motion. Types of Motion: Linear motion, angular motion and General motion. Uniform & Non Uniform motion. Laws of Motion: law of Inertia, Law of acceleration and law of reaction. Force: Definition and types of force: Centripetal Force, Centrifugal Force, Sources of force, components of Force, Factors of Force. Pressure, friction, Buoyancy and Spin.

UNIT IV – Projectiles and Levers

Freely falling bodies, Projectiles: Principles of Projectiles: Stability, equilibrium and its Types. Factors Effecting on Equilibrium. Definition of Work, Power and Energy. Mechanical Energy: kinetic energy, potential energy and strain energy. Levers: Definition and Types of Levers and their practical applications. Mechanical Advantage. Fluid Resistance, Aerodynamics.

UNIT V – Movement Analysis

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

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

- 1) Deshpande S.H.(2002), Manav Kriya Vigyan Kinesiology (Hindi Edition) Amravati :Hanuman Vyayam Prasarak Mandal.
- 2) KRSReddy & Sreenivasan (2014), Biomechanics And Applied Kinesiology, Navayug Books Internationals, Delhi.
- 3) Hoffman S.J(2005), Introduction to Kinesiology (Human Kinesiology publication Inc..
- 4) Steven Roy, & Richard Irvin. (1983), Sports Medicine. New Jersery: Prentice hall.
- 5) Thomas. (2001), Manual of structural Kinesiology, New York: Me Graw Hill.
- 6) Uppal A.K(2004), Lawrence Mamta MP Kinesiology(Friends Publication India)
- 7) Uppal, A.K (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friends publications.
- 8) Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.
- 9) Peter.M.Mc.Ginnis(1999), Biomechanics of Sport and Exercise, Human Kinetics, U.S.A, 1999

MPEC-203 : TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

UNIT I – Introduction

Meaning and Definition of Test, Measurement and Evaluation. Need and Importance of Measurement and Evaluation. Criteria for Test Selection: Scientific Authenticity, Administrative Considerations and Educational Applications. Scientific Authenticity: Validity, Reliability, Objectivity, Norms, Duplicate Forms and Standard Directions.

UNIT II – Physical Fitness Tests

Physical Fitness: Meaning and Definition, Physical Fitness Tests: AAHPER, JCR Tests. Roger's physical fitness Index. Cardio vascular test: Harvard step test, Cooper's 12 minutes run / walk test.

UNIT III – Motor Fitness Tests

Meaning and Definition of Motor Fitness, Motor Fitness Tests; Indian Motor Fitness Test,

Oregon Motor Fitness Test. Motor Ability: Meaning, Definition. Motor Ability Test: Barrow Motor Ability Test, Newton Motor Ability Test. Muscular Fitness: Kraus Weber Minimum Muscular Fitness Test.

UNIT IV – Anthropometric and Aerobic-Anaerobic Tests

Physiological Test - Aerobic Capacity: Bruce Treadmill Test Protocol, Beep test. Anaerobic Capacity: Margaria-Kalamen test, Anthropometric Measurements: Method of Measuring Height: Standing Height, Sitting Height. Girth: Arm, Waist, Hip, Thigh. Skin Folds: Chest, Abdomen, Mid-thigh, Triceps, Iliac Crest.

UNIT V – Skill Tests

Specific Sports Skill Test: Badminton: French Stalter Short Service Test, Miller Wall Volley Test. Basketball: Knox, Johnson Basketball Test. Hockey: Henry Friedel Field Hockey Test, Schmithal's Field Hockey Test, Volleyball: Russel Lange Volleyball Test, Brady Volleyball Test. Football: Johnson Soccer Test, Mc-Donald Volley Soccer Test. Tennis: Dyer Tennis Test, Broer Miller Test.

Note: Practical's of indoor and out-door tests be designed and arranged internally.

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

Semester III

MPCC-301: SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

UNIT I – Introduction

Sports training: Definition – Aims, Characteristics, Principles of Sports Training. Load: Definition, Components of load. Over Load: Definition, Causes of Over Load, Symptoms of Overload, and Remedial Measures for over load – Super Compensation. Recovery. Detraining and Retraining.

UNIT II – Components of Physical Fitness

Strength: Meaning, types - Isometric, Isotonic and Isokinetic exercises – Factors determining strength – Methods to improve strength. Speed: Meaning – types - Factors determining speed – Methods to improve speed. Endurance: Meaning – types - Factors determining endurance – Methods to improve Endurance.

UNIT III – Flexibility and Coordination

Flexibility: Meaning – types - Factors determining flexibility – Methods to improve flexibility. Coordination: Meaning, types - Factors determining coordination – Methods to improve coordination.

UNIT IV – Methods of Sports Training

Aerobic training, Anaerobic training, Resistance training, Fartlek Training, Interval training, Plyometric training, Pressure training, High Altitude training, Functional training, Repetition method of training, and Transfer of training effects.

UNIT V – Periodization

Training Plan: Micro, Meso and Macro Cycles. Short Term Plan and Long Term Plans Periodization: Meaning, Single, Double and Multiple Periodization, Phases of Periodization, Preparatory Period, Competition Period and Transition Period. Top form, Tapering performance. Training schedules.

- 1) 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
- 4) Sreenivasan & K.R.S Reddy(2013) Sciences of Sports Training, Swatik Publications, New Delhi
- 5) Daniel, D. Arnheim (1991) Principles of Athletic Traning, St. Luis, Mosby Year Book
- 6) David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John Moore University
- 7) Gary, T. Moran (1997) Cross Training for Sports, Canada : Human Kinetics
- 8) Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publications
- 9) Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia
- 10) Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2nd Edition, London: Jones and Bartlett Publications
- 11) Yograj Thani (2003), Sports Training, Delhi : Sports Publications
- 12) Michael; J.Alter(1988), Sciences of stretching Human Kinetics.
- 13) Fox, Bruisesr and Foss, The Physiology basis of Physical Education and Athletics, 4th Edition.
- 14) Larry G. Shaver : Essentials of Exercise Physiology.
- 15) Stwven J. Flack & WIllam J. Kraemer (1997), Designing resistance training programmeHuman Kinetics.

MPCC-302: SPORTS MEDICINE, ATHLETIC CARE AND REHABILITATION

Unit I – Introduction

Meaning, definition and importance of Sports Medicine, Definition and Principles of therapeutic exercises. Injuries: acute, sub-acute, and chronic. Advantages and Disadvantages of PRICE, PRINCE (Protection, Rest, Ice, NSAIDS (Non-Steroidal anti-inflammatory drugs), Compression & Elevation) therapy, Aquatic therapy.

Unit II – Posture

Posture, Values of Good posture, Causes of Bad posture, Normal curve of the spine and its utility, Deviations in posture: Kyphosis, lordosis, flat back, Scoliosis, round shoulders, Knock Knees, Bow legs, Flat foot. Causes for deviations and treatment including exercises. Posture test, Gait and types.

Unit III – Rehabilitation Exercises

Passive, Active, Assisted, Resisted exercise for Rehabilitation, Stretching, PNF techniques and principles. Gait training, Swiss ball exercises.

Unit IV – Massage

Brief history of massage – Massage as an aid for relaxation, Principles of massage,

Physiological , Chemical, Psychological effects of massage, Contra indications of Massage, Classification of Massage , Stroking manipulation: Effleurage , Pressure manipulation: Petri sage Kneading (Finger, Kneading, Circular) ironing Skin Rolling, Percussion manipulation: Tapotement, Hacking, Clapping, Beating, Pounding, Slapping, Cupping, Poking, Shaking Manipulation: Vibration and shaking.

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, Therapeutics modalities : Cryo, thermo, Hydro, Electro, Actino therapy Strapping, Taping and Bandages, supporting, Aiding techniques for equipment for upper extremities and Lower extremities and spine.

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)

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

MPCC-303 : SPORTS PSYCHOLOGY AND SPORTS SOCIOLOGY

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, Emotion

Meaning and Definition, Types of Motivation: Intrinsic, Extrinsic. Achievement Motivation: Meaning, Goal Setting. Anxiety: Meaning and Definition, Nature, Types, Causes, Method of Measuring Anxiety. Competitive Anxiety and Sports Performance. Stress: Meaning, Definition, Causes of Stress and Sports Performance. Aggression: Meaning, Definition and Types of Aggression, Aggression and Sports Performance. Relaxation: Meaning, Definition and Types of relaxation. Methods of measuring, Motivation, Anxiety, Stress and Aggression.

UNIT III – Psychological Test

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 tests, Sports Anxiety test, Sports aggression tests, stress test.

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. Violence in Sports.

UNIT V – Group Cohesion

Group: Definition and Meaning, Groups on Composition, Group Cohesion, Group Interaction, Group Dynamics, Competition and cooperation. Current Problems in Sports and Future Directions, Sports Social Crisis Management, Women in Sports: Sports Women in our Society, Gender inequalities in Sports.

Practical's: At least five experiments related to the topics listed in the Units above should be conducted by the students in laboratory. (Internal assessment.)

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

Semester - IV

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

Unit I – Communication & Classroom Interaction

Concept, Elements, Process & Types of Communication, Communication Barriers & Facilitators of communication, Communicative skills of English. Listening, Speaking, Reading & Writing Concept & Importance of ICT, challenges in integrating ICT in Physical Education, Scope of ICT: Teaching Learning Process, Publication Evaluation, Research and Administration.

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

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

MPCC-402: HEALTH EDUCATION AND SPORTS NUTRITION

Unit - I Health Education

Meaning, Definition of Health, Health Education. Concept, Dimensions, and Determinants of Health. Health Instructions, Aims, objectives and Principles of Health Education. Health Service, Health supervision.

Unit - II Health Problems in India

Communicable: Tuberculosis, Measles, Mumps, Rabbis, Polio, whooping cough, Hepatitis, Ebola, Swine flu, Dengue, Malaria and STD: Gonorrea, HIV/Aids, and Syphilis. and Non Communicable Diseases: Cancer, Osteoporosis, Asthma, Hyper tension, Diabetes. Obesity,

Malnutrition, Adulteration in food, Environmental sanitation, Explosive, Population,

Personal and Environmental Hygiene in schools

Objective of school health service, Role of health education in schools

Nutritional service, Health appraisal, , Healthful school environment, first- aid and emergency care. Health Agencies: Red cross, WHO, St.John Ambulance, UNICEF, UNESCO.

Unit- III Hygiene and Health

Meaning of Hygiene, Types of Hygiene, dental Hygiene, Effects of Alcohol on Health, Effects 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: Carbohydrate, Protein, Fats, Vitamins, Minerals, Water Dehydration and fluids replacement, Classification of food, organic food, Carbohydrate loading, Hyponatremia, Role of carbohydrates, Fat and protein on Sports Performance.

Unit - V Nutrition and Weight Management

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

References:

- 1) Bucher, Charles A. "Administration of Health and Physical Education Programme".
- 2) Delbert, Oberteuffer, et. al." The School Health Education".
- 3) Ghosh, B.N. "Treaties of Hygiene and Public Health".
- 4) Hanlon, John J(2003), "Principles of Public Health Administration".
- 5) Turner, C.E. "The School Health and Health Education".
- 6) Moss etd.,. "Health Education" (National Education Association of U.T.A.)
- 7) Nemir A. 'The School Health Education'' (Harber and Brothers, New York).
- 8) Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc.
- 9) Boyd-Eaton S. et. Al. (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended.
- 10) 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.

MPEC-403: SPORTS TECHNOLOGY

Unit I Sports Technology

Meaning, definition, Importance of technology in Sports, General Principles and purpose of instrumentation in sports, Technological impacts on sports.

Unit II Science of Sports Materials

Adhesives- Nano glue, Nano moulding technology, Nano turf. Foot wear production, Factors and applications in sports, constraints. Foams- Polyurethane, Polystyrene, Styrofoam, closed cell and opencell foams, Neoprene, Foam. Smart Materials: Shape Memory Alloy (SMA), Thermo chromic film, High-density modeling foam.

Unit III Surfaces of Playfields

Modern surfaces for playfields, construction and installation of sports surfaces. Types of materials: synthetic, wood, polyurethane. Artificial turf. Modern technology in the construction of indoor and outdoor facilities. 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: Running, 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. Use of computer and software in mater analysis and coaching.

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

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

MPEC- 411: SPORTS MANAGEMENT AND CURRICULUM DESIGN IN PHYSICAL EDUCATION (ELECTIVE)

UNIT I – Introduction to Sports Management

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

UNIT II – Program Management

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

UNIT III – Equipment and Public Relation

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

UNIT IV – Curriculum

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

UNIT V – Curriculum Sources

Factors affecting curriculum: Sources of Curriculum materials, text books, Journals, Dictionaries, Thesis, Encyclopedias, Micropaedias, 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.

- 1) Aggarwal, J.C (1990), Curriculum Reform in India World overviews, Doaba World Education Series 3 Delhi: Doaba House, Book seller and Publisher.
- 2) Arora, G.L. (1984), Reflections on Curriculum, New Delhi: NCERT.
- 3) Bonnie, L. (1991), The Management of Sports. St. Louis: Mosby Publishing Company, Park House.
- 4) Bucher A. Charles, (1993), Management of Physical Education and Sports (10th ed.,) St. Louis: Mobsy Publishing Company.
- 5) Carl, E, Willgoose. (1982), Curriculum in Physical Education, London: Prentice Hall.
- 6) 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.
- 8) Chelladurai, P. (1999), Human Resources Management in Sports and Recreation. Human Kinetics.
- 9) John, E, Nixon & Ann, E, Jewett. (1964), Physical Education Curriculum, New York: The Ronald Press Company.
- 10) McKernan, James (2007), Curriculum and Imagination: Process, Theory, Pedagogy and Action Research,. U.K. Routledge
- 11) NCERT (2000), National Curriculum Framework for School Education, New Delhi: NCERT.
- 12) NCERT (2005). National Curriculum Framework, New Delhi: NCERT. Williams.
- 13) J.F. (2003). Principles of Physical Education. Meerut: College Book House.
- 14) Yadvnider Singh. Sports Management, New Delhi: Lakshay Publication.

MPEC-412 : DISSERTATION/PROJECT WORK/EVENT MANAGEMENT (ELECTIVE)

- 1. Student who have chosen elective paper in Dissertation / Project Work / Event Management has to choose the Supervisor in the Department and select the Topic/Event of his choice in consultation with his/her Supervisor and submit the proposal on or before the end of the II semester to the Principal / Head of the Department.
- 2. Further the student has to submit his/her Dissertation (four copies)/Project/Event not less than 15 days before the beginning of the IV Semester examinations and appear Viva-voce examination.

Semester - I Practicum Course

MPPC-121: Track and Field - Running Events (compulsory)

Any one of the following i.e. Gymnastics/ Swimming / Yoga .

Running

Fundamental techniques –Short and Middle distance.

Use of Starting blocks- stance on the blocks.

Running ABC, 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. Drills.

Advanced techniques various techniques of sprint start: Bullet, Medium and Elongated, Laying out of

Standard Track with staggers

Gymnastics

Floor Exercise, Pyramids, Parallel bars and Balancing beam.

Swimming Float, Free style, and Breast stroke.

Yoga

Yoga postures in standing, sitting, prone, supine and balancing Asanas.

MPPC- 122 : Game of Specialization :- Badminton / Ball badminton/Baseball / Basketball/Cricket/ Football/ Handball /Hockey/ Kabaddi / Kho-Kho / Softball/ Table Tennis / Tennis / Volleyball A candidate has to learn and perform proficiency and officiating in any two games – One Indigenous & one ball game

MPPC-123: Teaching Lessons: Coaching lessons in the events of MPPC-121 and 122.

Student has to take Coaching lessons of each 45 mins in the activities and games mentioned above MPPC 121 and 122. 5 lessons (4 Internal and 1 External)

MPPC-124: Class room teaching Lessons on theory of different Sports & Games

Student has to take Teaching lessons on theory of each 45 mins in different sports of the above MPPC 121 and 122. 5 lessons (4 Internal and 1 External)

Semester - II Practicum Course

MPPC- 221: Track and Field - Jumping Events and Hurdle Events (compulsory)

Any one of the following i.e. Gymnastics/ Swimming / Yoga .

Jumping

Fundamental techniques -Broad jump, High jump, Triple jump and Pole vault Advanced techniques in

jumps and Drills. Laying out of Jumping Sectors

Hurdles

Fundamental techniques of jumping over hurdle, advanced techniques and drills

Gymnastics

Horizontal bar, Roman rings, Gymnastics positions, Rhythmic Gymnastics and Vaulting horse.

Swimming

Butterfly, Back stroke, Medley and Rules regarding swimming.

Yoga

Pranayama, Dhyana, Bhandas, Mudras and Kriyas.

MPPC- 222 : Laboratory Practical in Physiology of Exercise and Sports Bio mechanics and Kinesiology

Student has to learn at least two practical in Exercise Physiology and Sports Biomechanics and Kinesiology in the laboratory and prepare work book on practicals.

MPPC- 223: Any two of the following activities:

Aerobics / Taekwondo / Shooting / Archery.

Student has to learn atleast two activities from the above and exhibit proficiency in examination.

MPPC- 224: Adventure Activities (Trucking, rock climbing and cycling) / Mass demonstration Activities (Bharathiyam, Pyramids, Calisthenics and light apparatus)

Student has to learn any one of the activity from the above and exhibit demonstration and show proficiency during examination.

Semester - III Practicum Course

MPPC- 321: Track and Field – Throwing Events (compulsory)

Throwing Events

Fundamental techniques in Shot-put, discuss, javelin and Hammer Advanced techniques in throws and Drills. Laying out of Throwing Sectors

Field Test for Fitness and Skills

Student has to learn testing procedures to test any two fitness variables and skills related to sports on ground and prepare practical work book on practical done.

MPPC- 322: Laboratory Practical in Psychology and Physiotherapy

Student has to learn at least two practical in Psychology and Physiotherapy in the laboratory and prepare work book on practical done.

MPPC- 323: Game of Specialization – Badminton / Ball badminton/Baseball / Basketball/Cricket/ Football/ Handball /Hockey/ Kabaddi / Kho-Kho / Softball/ Table Tennis / Tennis / Volleyball

A candidate has to learn and perform proficiency and officiating in any two games – other than two games opted in the First Semester.

MPPC- 324: Teaching Lesson – Coaching lessons in the Track and Field of this Semester and opted games under game of specialization of MPP 323

Student has to take Coaching lessons on the above of each 45 mins. 5 lessons (4 Internal and 1 External)

MPEC- 412: Dissertation / Project work / Event Management

Student who have chosen elective paper in Dissertation / Project Work / Event Management has to choose the Supervisor in the Department and select the Topic/Event of his choice in consultation with his/her Supervisor and submit the proposal on or before the end of the second semester to the Principal / Head of the Department.

Further the student has to submit his/her Dissertation (four copies)/Project/Event not less than 15 days before the beginning of the Fourth Semester examinations and appear Viva-voce examination.

MPPC- 421: Track and Field – Combined Events

Combined Events

Pentathlon - Order of events, Heptathlon - Order of events and Decathlon - Order of events.

Rules regarding Track and Field. Officiating in Track and Field.

Training Methods – Design Circuit, Interval and Resistance training with load dynamics. Training Schedules.

Student has to prepare a detailed work book on training methods.

MPPC- 422: Game of Specialization

- ✤ A student has to choose any one of the games learned in the previous semesters as a Game of Specialization and exhibit the proficiency, and officiating ability.
- Student has to prepare a detailed Record with the following guidelines and attend for vivavoce.
 - 1. Origin, History and development of game
 - 2. Technical terms related to the game
 - **3**. Fundamental Skills
 - 4. Techniques and Tactics
 - 5. Advanced Skills / drills
 - 6. Game strategies / set play
 - 7. Lead up games
 - 8. Training Schedules for six weeks.
 - 9. Skill tests
 - **10**. Talent identification
 - 11. Selection criteria
 - 12. Rules of the game, laying of court, advanced gadgets,
 - **13**. Officiating and signals
 - 14. Mechanics of officiating
 - 15. Major Tournaments, Trophies and the results
 - 16. Awards and Awardees in the respective game/event.
 - 17. Paper cuttings and latest articles

MPPC- 423: Officiating in Track and Field / Gymnastics / Swimming/Yoga

Student has to learn the system of officiating in any one of the above events, participate in the intramural or extramural as official and show his abilities during the examinations.

MPPC- 424: Coaching lessons in Game of Specialization (Internship)

Student has to take 10 coaching lessons of each 45 mins duration in his/her game of specialization. 5 lessons at schools and 4 internal and 1 external at the institution/department.

----- END -----

DEGREE EXAMINATIONS – 2015

FIRST SEMESTER

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

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) page

5x5 = 25 Marks

- 1. Qualities of good researcher.
- 2. Write the meaning and definition of Research.
- 3. Formulation of Hypothesis.
- 4. Explain limitation and delimitation.
- 5. Foot notes and Bibliography.
- 6. Explain the types of variables.
- 7. Cluster sampling.
- 8. Historical criticism.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries **TEN (10)** MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the nature, characteristics and importance of Research in Physical Education.

(OR)

- 10. Explain Location of Research problem.
- 11. Define Questionnaire. Explain the development and administration of Questionnaire.

(OR)

12. Explain the types of research in physical education.

13. Discuss in detail on sampling techniques with suitable examples.

(OR)

14. Explain in detail about the importance of research in physical education.

15. a) Merits and demerits of Interview.

b) Skimming.

(OR)

16. Explain the steps involved in research report.

17. Write about the method of writing Research Proposal.

(OR)

18. Explain the terms a) Front Material b) Back Material.

DEGREE EXAMINATIONS - 2015

FIRST SEMESTER

MPCC-102: PHYSIOLOGY OF EXERCISE

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed **TWO** (2) pages

5x5 = 25 Marks

- 1. Write the function of muscles.
- 2. Fast and slow twitch muscle fibers.
- 3. Explain cardiac cycle.
- 4. Minute ventilation.
- 5. Carbohydrates.
- 6. Vitamins.
- 7. Water and electrolytes.
- 8. Blood doping.

5x10 = 50 Marks

PART – B

Answer All Questions

Each question carries **TEN (10)** MARKS

Each answer should not exceed FOUR (4) pages

Answer All Questions

- 9. a) Types of muscle contractions.
 - b) Cardiovascular responses to exercise.

(OR)

- 10. Define exercise physiology and explain the importance of exercise physiology in sports performance.
- 11. A) Methods of measuring fat.
 - b) Explain carbohydrate loading.

(OR)

- 12. What is athlete diet? Explain the diet before, during and after the activity.
- 13. A) Discus on body composition and aging.
 - b) WADA conduct of dope test.

(OR)

- 14. Explain the sources of energy for aerobic and anaerobic metabolism.
- 15. a)Explain anabolic and androgenic steroids.
 - b) Energy balance and weight control.

(OR)

- 16. Explain structural and functional classification of muscles with suitable examples.
- 17. Draw a neat diagram of Heart and explain the structure of the heart.

(OR)

 Define Cardiac Output and explain the effects of exercise and training on Cardio Vascular System.

DEGREE EXAMINATIONS – 2015

FIRST SEMESTER

MPCC-103: APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

PART – A

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Importance of statistics in physical education.
- 2. Meaning and definition of measures of central tendency.
- 3. Calculate standard deviation for the given data. 20, 25, 16, 18, 17, 26.
- 4. What is quartile deviation?
- 5. Standard error.
- 6. Level of confidence.
- 7. Write the meaning of correlation and explain coefficient of correlation.
- 8. uses of correlation.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Calculate co-efficient of correlation for the given data by employing product movement method.

X:	30	35	40	32	37	39	42
Y:	40	29	36	38	41	45	40
(OR)							

10. Calculate Rank order correlation for the given raw scores.

X:	70	75	76	80	69	85	70	76
Y:	72	69	82	72	82	70	72	81

11. a) What is Chi-square and explain its characteristics.

b) Calculate 't' ratio for the given data.

Group I:	70	75	78	74	80
Group II:	80	81	79	75	76

(OR)

12.	Cal	culate (Chi-squa	are for t	he given data.
	fo:	15	20	35	30
	fe:	25	25	25	25

13. a) What is normal curve and explain its principles.

b) Skewness and Kurtosis.

(OR)

14. What is measures of variability and explain Hull scale.

15. a) Kinds of data.

b) Parametric and non-parametric statistics.

(OR)

16. Calculate mean for given data.

C.I:	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f:	15	14	17	18	16	12	10

17. Explain the advantages and disadvantages of Mean and Median.

(OR)

18. Explain the Quartile Deviation and Standard Deviation.

MASTER OF PHYSICAL EDUCATION

DEGREE EXAMINATIONS – 2015

FIRST SEMESTER

MPEC-111: FITNESS AND LIFE STYLE MANAGEMENT (ELECTIVE)

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed **TWO** (2) pages

5x5 = 25 Marks

- 1. Write the meaning and definition of Fitness.
- 2. Components of body weight.
- 3. What is physical and mental stress?
- 4. Energy Values of different important foods.
- 5. Obesity and its risk factors.
- 6. Relationship between Life Style and Health Fitness.
- 7. Harmful Effects of Overtraining.
- 8. Cardiovascular Fitness.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries **TEN** (10) MARKS

Each answer should not exceed FOUR (4) pages

Answer All Questions

9. Explain different Types of Fitness.

(OR)

10. How will you develop Health Fitness of an individual and Write exercise protocols.

11. Describe the intake of nutrition for normal persons and exercising individuals. (OR)

12. Describe Vitamins, Minerals and Water.

13. Describe stress relief through exercise and stress management protocols.

(OR)

14. Describe mental stress and painful effects of mental stress on health.

15. What is health behavior? Describe self-efficacy on health behavior.

(OR)

16. Describe facts on childhood obesity and activity.

17. Discuss fluid replacement before, during and after exercise.

(OR)

18. Describe health related fitness components.

DEGREE EXAMINATIONS – 2015

FIRST SEMESTER

MPEC-112: EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION (ELECTIVE)

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Concept of Educational Technology.
- 2. Goal Setting.
- 3. What is Instructional design?
- 4. Meaning of Audio-Visual Media.
- 5. Innovations in the area of Educational Technology.
- 6. Nature and scope of Educational Technology.
- 7. Importance of Audio.
- 8. Conference.

5x10 = 50 Marks

PART – B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

Answer All Questions

9. Explain about Teaching Technology, Instructional Technology and Behavioral Technology.

(OR)

- 10. Explain about Media Application Stage and Computer Application Stage.
- 11. Explain about Instructional Strategies and media for Instructions.

(OR)

12. Explain about Modes, Barriers and Process of Communication.

13. Explain the Concepts, Views and Process of Communication.

(OR)

14. Explain Models for the Development of Self Learning Material.

15. Describe Broadcasting and Audio Recordings..

(OR)

16. Describe Script Writing, Pre-Production and Post-Production Process.

17. Discuss on Uses of Animation Films.

(OR)

18.Explain the Procedure and Organization of Tele Conference ,Video-Experiences of

Institution, Schools and Universities.

DEGREE EXAMINATIONS – 2015

SECOND SEMESTER

MPCC-201: YOGIC SCIENCES

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and Definition of Yoga.
- 2. Bhakti Yoga.
- 3. Benefits of Asanas.
- 4. Benefits of Kriyas.
- 5. Importance of Surya Namaskara.
- 6. Importance of Pranayama.
- 7. Uses of Meditation.
- 8. Role of Yoga in Sports.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Describe Astanga Yoga.

(OR)

10. Scope and Importance of Yoga.

11. Explain the Importance of Neti , Kapalabhati and Dhauti Kriyas.

(OR)

- 12. Explain the Importance of Jaladhara, Udyana and Mula Bandhas.
- 13. Impact of Pranayama on Naadis.

(OR)

14. Effect of Pranayama on Major Chakras.

15. Describe types of Meditation and their Importance.

(OR)

16. Effect of Yoga on Respiratory System.

17. Role of Yoga in Making out a Sports Person.

(OR)

18.Effect of Yoga on Digestive System.

DEGREE EXAMINATIONS – 2015

SECOND SEMESTER

MPCC-202: SPORTS BIOMECHANICS AND KINESIOLOGY

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Importance of Biomechanics.
- 2. Center of Gravity.
- 3. Muscles around Knee Joint.
- 4. Friction.
- 5. Projectiles.
- 6. Aerodynamics.
- 7. Qualitative Method.
- 8. Predictive Method.

5x10 = 50 Marks

PART – B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the importance of Kinesiology in Sports.

(OR)

- 10. Explain the role of Center of Gravity in the improvement of Sports Performance.
- 11. Draw a neat diagram of Shoulder Joint and Explain the origin, insertion of muscles

around Shoulder Joint.

(OR)

- 12. Draw a neat diagram of Hip Joint and Explain the Muscles around Hip Joint.
- 13. Explain the Newton Laws of Motion and their importance in Sports.

(OR)

14. Explain the types of Human motions with suitable examples.

15. Define Lever and explain the types of Lever with suitable examples.

(OR)

16. Define Equilibrium and describe the factors effecting on Equilibrium.

17. Explain the mechanism of Video analysis of Sports movements.

(OR)

18. Describe various methods of Movements analysis.

DEGREE EXAMINATIONS – 2015

SECOND SEMESTER

MPCC-203: TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and Definition of Test.
- 2. Importance of Measurement in Physical Education.
- 3. Meaning and Definition of Physical Fitness.
- 4. Cooper's 12 minutes run/walk Test.
- 5. Meaning and Definition of Motor Fitness.
- 6. Newton Motor Ability Test.
- 7. French Stalter Short Service Test.
- 8. Johnson Basketball Test.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the importance of Test, Measurement and Evaluation in Physical Education.

(OR)

- 10. Explain the Criteria of Test Selection.
- 11. Explain about AAHPER Test.

(OR)

- 12. Explain JCR Test.
- 13. Explain Indian Motor Fitness Test.

(OR)

14. Explain Oregon Motor Fitness Test.

15. Explain the Test for measuring Aerobic Capacity.

(OR)

- 16. Explain the Test for measuring Anaerobic Capacity.
- 17. Explain the Skill Test for Volleyball.

(OR)

18. Explain the Dyer Skill Test of Tennis.

DEGREE EXAMINATIONS – 2015

THIRD SEMESTER

MPCC-301: SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

PART – A

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. What are the aims of Sports Training?
- 2. What are the causes of Overload?
- 3. Write the method to improve Speed.
- 4. Write the method to Improve Flexibility.
- 5. Factors determining Coordination.
- 6. Resistance Training.
- 7. Define Training Cycles.
- 8. factors determining Endurance.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the Principals of Sports Training.

(OR)

- 10. Define Load and Explain the Components of Load.
- 11. Define Strength and explain about the methods to improve strength.

(OR)

- 12. Define Endurance and explain the methods to improve endurance..
- 13. Define Flexibility and explain the types of Flexibility..

(OR)

14. Define Coordination and explain the types of Coordination.

15. Explain the importance of Aerobic and Anaerobic training in Sports.

(OR)

- 16. Describe the importance of Resistance and Pressure training in sports.
- 17. Explain the process of Periodization in Sports.

(OR)

18. Define Overload and explain the symptoms of Overload.

DEGREE EXAMINATIONS – 2015

THIRD SEMESTER

MPCC-302: SPORTS MEDICINE, ATHLETIC CARE AND REHABILITATION

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

PART – A

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and Definition of Sports medicine.
- 2. What is Aquatic Therapy?
- 3. What are the causes of Bad Posture?
- 4. Kyphosis.
- 5. Causes of deviation in Posture.
- 6. PNF techniques and their Principles.
- 7. Principles of massage.
- 8. Thermotherapy.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the importance of Sports Medicine.

(OR)

- 10. Define Therapeutic exercises and explain the Principles of Therapeutic exercises.
- 11. Define Posture and explain Normal curve of the spine and its Utility.

(OR)

- 12. Define Scoliosis and explain causes for Scoliosis.
- Define Rehabilitation and explain assisted and resisted exercises for Rehabilitation.

(OR)

14. Explain Physiological and Psychological effects of Massage.

15. Explain various techniques of Pressure manipulation.

(OR)

16. Describe the classification of Massage.

17. What are the Sports Injuries and Explain Preventive Measures in Detail.

(OR)

18. Define PRICE and explain the Advantages and Disadvantages of PRICE.

DEGREE EXAMINATIONS – 2015

THIRD SEMESTER

MPCC-303: SPORTS PSYCHOLOGY AND SPORTS SOCIOLOGY

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

PART – A

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and definition of Sports Psychology.
- 2. Factors effecting on Perception?
- 3. Meaning and definition of Personality.
- 4. Stress and Aggression in sports.
- 5. Violence in Sports.
- 6. Meaning and Definition of Sports Sociology.
- 7. Meaning and Definition of Group Interaction and Group Dynamics.
- 8. Competition and Cooperation.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the effects of Personality on Sports Performance.

(OR)

- 10. Explain the present status of Sports Psychology in India.
- 11. Define Motivation and Explain the Types of Motivation with suitable examples.

(OR)

12. Define Anxiety and explain the method of measuring Anxiety.

13. Explain the Reaction timer Psychology Test.

(OR)

14. Explain the Sports Anxiety Test.

15. Explain the influence of fans and spectators on Sports Performances.

(OR)

16. Explain the current problems in Sports and future directions.

17. Explain Women in Sports.

(OR)

18. Explain Social Crisis Management in Sports.

MASTER OF PHYSICAL EDUCATION DEGREE EXAMINATIONS - 2015 FOURTH SEMESTER

MPCC-401: INFORMATION & COMMUNICATION TECHNOLOGY IN PHYSICAL EDUCATION

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed **TWO** (2) pages

5x5 = 25 Marks

- 1. Types of Communication.
- 2. Importance of ICT.
- 3. Hardware of Computer.
- 4. Uses of Internet.
- 5. Features of MS Word.
- 6. Uses of MS Word in Physical Education.
- 7. Virus in Computer.
- 8. Web Browsers and Search Engines.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the challenges in integrating ICT in Physical Education.

(OR)

- 10. Explain the scope of ICT in Physical Education.
- 11. Define a computer and explain the types and applications of Computer in Sports. . (OR)
- 12. Define a Software and explain the types of softwares in Computer.
- 13. Describe the Communications Barriers.

(OR)

14. Explain the features and applications of MS Excel in Physical Education.

15. Explain the features and applications of MS PowerPoint in Physical Education.

- 16. Explain the importance of E-Learning.
- 17. Explain the approaches for integrating ICT in Teaching Learning Process.

(OR)

 Define a Computer network and explain about preparation of slides by MS Power Point.

DEGREE EXAMINATIONS – 2015

FOURTH SEMESTER

MPCC-402: HEALTH EDUCATION AND SPORTS NUTRITION

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and Definition of Health.
- 2. Principles of Health Education.
- 3. Causes of AIDS?
- 4. Effects of Tobacco on Health.
- 5. Role of Carbohydrates on Sports Performance.
- 6. Types of Hygiene?
- 7. Meaning and Definition of Sports Nutrition.
- 8. Concept of BMI.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the aims and Objectives of Health Education.

(OR)

- 10. Explain the causes and disadvantages of Hypertension in Sports.
- 11. Define Hygiene write the effects of alcohol on Health.. . (OR)
- 12. What are the causes of Obesity and its management?
- 13. Define Sports Nutrition and explain the types of nutrients.

(OR)

14. Define Lipids and role of fats on Sports Performance.

15. Explain the role of diet and exercise in Weight Management.

(OR)

- 16. Explain the diet design and exercise schedule for Weight Gain and Loss.
- Define Carbohydrates and explain the process of Carbohydrate Loading in Sports.

(OR)

18. Define Nutrition and explain the guidelines of Nutrition.

DEGREE EXAMINATIONS – 2015

FOURTH SEMESTER

MPCC-403: SPORTS TECHNOLOGY

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and Definition of Technology.
- 2. Footwear production.
- 3. Nano moulding technology
- 4. Construction and Installation of Sports Surfaces.
- 5. Types of Materials.
- 6. Uses of Computer in Match analysis.
- 7. Advantages of Clothing and Shoes.
- 8. Advantages of Bowling Machine.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain about the importance of technology in Sports.

(OR)

- 10. Explain the impact of Technology on Sports.
- Explain about modern technology in the construction of indoor and outdoor facilities.

. (OR)

- 12. Write about the types of protective equipment their advantages in Sports.
- 13. Explain about the mechanism and advantages of Ball feeder in Basketball.

(OR)

14. Explain the mechanism and advantages of serving machine in Tennis.

15. Explain the video coverage of Sporting Events.

(OR)

- 16. Explain the measuring equipment of Running, Throwing and Jumping Events.
- 17. Explain the general principles and purpose of instrumentation in Sports.

(OR)

18. Explain the types of modern surfaces for playfields.

MASTER OF PHYSICAL EDUCATION DEGREE EXAMINATIONS – 2015 EQUIDTLY SEMESTED

FOURTH SEMESTER

MPCC-411: SPORTS MANAGEMENT AND CURICULLUM DESIGN IN PHYSICAL EDUCATION (ELECTIVE)

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and Definition of Sports Management.
- 2. Role of personal manager in an organization.
- 3. Steps involved in the programme development.
- 4. What are the factors influencing programme development.
- 5. Guidelines for selection of Equipment.
- 6. Principles of public relations in schools and communities?
- 7. Meaning and Definition of Curriculum.
- 8. Factors effecting curriculum.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the Objectives of Personal Management in an organization.

(OR)

- 10. Explain the functions of Sports Management.
- 11. Explain the guidelines for checking, storing, issuing, care and maintenance of Equipment.

(OR)

- 12. Explain the influence of media on public relation.
- 13. Explain the principles of curriculum construction in Sports.

(OR)

14. Explain the principles of integration in sports.

15. Explain the theories of curriculum development.

(OR)

- 16. Explain the approaches to curriculum framework .
- 17. Define Curriculum and explain the sources of curriculum.

(OR)

18. Define curriculum research and explain the importance of curriculum research in sports.

ANNEXURE-II

MPEC-211 BASIC CONCEPTS OF YOGA (Non-Core Paper for II Semester)

UNIT I

Meaning and Definition of Yoga, Concepts, Objectives, Benefits and misconceptions of Yoga, Yoga and its relevance to Physical Education.

UNIT II

Streams of Yoga-Jnana Yoga, Raja Yoga, Bakthi Yoga, Karma Yoga and their Concepts.

UNIT III

Limbs of Yoga-Yama, Niyama, Asana, Pranayama, Prathyahana, Dharana, Dhyana Samadhi, Surya Namaskara-Introduction ,Objectives, Twelve stepped solution to Sun God, Vajrasana, Pascimottanasana, Bujangasana, Salabhasana, Sarvangasana and Halasana and their Benefits.

UNIT IV

Meditation - Meaning of Meditation ,types of Meditation , Role of Meditation in Relaxation, Kriyas, Kapalabhati, Neti, Dhouti and their Benefits-Mudras-Facts about Mudras-Anjali Mudra, Aswini Mudra, Yoga Mudra and their Benefits.

UNIT V

Effects of Yogic practices on different systems- Digestive System, Circulatory System, Respiratory System, Endocrine System, Nervous System.

REFERENCE BOOKS

1.	Swamy Kuvalayanand - A	Asanans
2.	Swamy Kuvalayanand - I	Pranayama
3.	B.K.S Lyendar - 1	Light on yoga
4.	Sri Yogendra Yoga Institu	te -Yoga Personal Hygiene
5.	S.N. Das Guptha	- Yoga In Relation to other Systems of Indian
		thought.
6.	M.P. Pandit	- Kundalini Yoga
7.	Jaimini	- The Science of Yoga
8.	Harihara Nanda Arayan	- Yoga Sutra of Patanjali
9.	Kaivalyadhra	- Hath yoga Pradipika
10.	M.M.Gore	- Anatomy and Physiology Yogic Practice
11.	Vivekananda Kendra Praka	shan Trust-Yoga-An instruction Booklet
12.	Rajendar Menen	- The Healing Power of mudras

MPEC-311 FITNESS AND WELLNESS (Non-Core Paper for III Semester)

UNIT I

Physical Fitness- Meaning and Definition of Fitness-Competitive Fitness-Health related Fitness-Facts about Physical Fitness -Physical Fitness Components-Speed-Strength- Endurance - Flexibility-Methods of developing Fitness – Resistance Training-Fartlek Training –Skipping-Hiking and Back Packing-Swimming – Walking- Facts to be consider before beginning physical activity-Importance of Physical Fitness in Life-FIT Formula- Six Pack- Training Schedule to develop six pack.

UNIT II

Health and Wellness – Definition of Health and Wellness- Facts about Health and Wellness-Brief introduction on Emotional Health- Emotional Wellness- Physical Health-Physical Wellness-Healthy Life- Facts about Healthy life style - HELP Philosophy.

UNIT III

Hypo-Kinetism and Ageing- Meaning of Hypo-Kinetism and its impact on health-Ageing and Physiological Changes-Body Composition-Body weight Loss-Principles of Body Weight Loss-Devine formula to Predict Body Weight-BMI and its Classification-Obesity-Hypertension-Diabetes Mellitus-Exercise to Control Obesity – Hypertension-Diabetes Mellitus.

UNIT IV

Nutrition-Definition of Nutrition-Constituents of Nutrition-Carbohydrates-Proteins-Fat -Vitamins-Nutritional Supplements-Importance of Nutrition in Life.

UNIT V

Stress and Training-Stress-meaning and types of stress, Physical and mental stress-Harmful effects of overtraining and excessive exercise on health, -mental stress and painful effects of mental stress on health. Anxiety, Depression, insomnia, Compulsive obsessive behaviors, Stress relief through exercise and stress management protocols.

REFERENCE BOOKS

1.Dan Benardot	 Advanced Sports Nutrition.
2. Charles B. Corbin / Ruth Lindsey/Greg	Welk - Concepts of Fitness and Wellness.
3.Jack H.Wilmore/David L.Costill	- Physiology of Sports and Exercise.
4. Haradayal Singh	- Science of Sports Training.
5. Daryl Siedentop - Intr	oduction to Physical Education, Fitness and Sports.
6.Midland College	- Your Fitness and Wellness guide
Kinesiology Department	
7. Bengt.o.Eriksson and Others	- Sports Medicine-Health & Medication.
8. P.K.Pande & S.K. Gangopandhyay	- Health Education for School Children.
9. Dr.S.K.Mangal	- Health and Physical Education.

DEGREE EXAMINATIONS – 2015

SECOND SEMESTER

MPEC-211 BASIC CONCEPTS OF YOGA (NON-CORE COURSE)

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

$\mathbf{PART} - \mathbf{A}$

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at **ONE PLACE** continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and Definition of Yoga.
- 2. Bhakti Yoga.
- 3. Benefits of Asanas.
- 4. Benefits of Kriyas.
- 5. Importance of Surya Namaskara.
- 6. Importance of Pranayama.
- 7. Uses of Meditation.
- 8. Role of Yoga in Sports.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Describe about Jnana Yoga.

(OR)

- 10. Scope and Importance of Yoga.
- 11. Explain the Importance of Neti, Kapalabhati and Dhauti Kriyas.

(OR)

12. Explain the benefits of Mudras.

13. Impact of Pranayama on Sports Performance.

(OR)

14. Describe about the effects of yogic practices on personality development.

15. Describe types of Meditation and their Importance.

(OR)

16. Effects of Yoga on Respiratory System.

17. Role of Yoga in Making out a Sports Person.

(OR)

18. Effects of Yoga on Digestive System.

DEGREE EXAMINATIONS – 2015

SECOND SEMESTER

MPEC-211 BASIC CONCEPTS OF YOGA (NON-CORE COURSE)

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

PART – A

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 14. Meaning and Definition of Yoga.
- 15. Bhakti Yoga.
- 16. Benefits of Asanas.
- 17. Benefits of Kriyas.
- 18. Importance of Surya Namaskara.
- 19. Importance of Pranayama.
- 20. Uses of Meditation.
- 21. Role of Yoga in Sports.

5x10 = 50 Marks

PART – B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

22. Describe about Jnana Yoga.

(OR)

- 23. Scope and Importance of Yoga.
- 24. Explain the Importance of Neti , Kapalabhati and Dhauti Kriyas.

(OR)

- 25. Explain the benefits of Mudras.
- 26. Impact of Pranayama on Sports Performance.

(OR)

- 14. Describe about the effects of yogic practices on personality development.
- 15. Describe types of Meditation and their Importance.

(OR)

16. Effects of Yoga on Respiratory System.

17. Role of Yoga in Making out a Sports Person.

(OR)

18. Effects of Yoga on Digestive System.



DEGREE EXAMINATIONS - 2015

THIRD SEMESTER

MPEC-311 FITNESS AND WELLNESS(NON-CORE COURSE)

(No additional sheet will be supplied)

Time: 3 hours

Max. Marks: 75

PART – A

Answer ANY FIVE Questions

Each question carries FIVE (5) marks

All Answers should be written at ONE PLACE continuously

Each answer should not exceed TWO (2) pages

5x5 = 25 Marks

- 1. Meaning and Definition of Competitive Fitness.
- 2. Speed.
- 3. Benefits of Swimming.
- 4. Facts about Healthy Life Style.
- 5. Importance of Nutrition in Life.
- 6. Stress and their types.
- 7. Health and Wellness.
- 8. Impact of Hypo-Kinetism on Health in Sports.

5x10 = 50 Marks

PART - B

Answer All Questions

Each question carries TEN (10) MARKS

Each answer should not exceed FOUR (4) pages

9. Explain the Physical Fitness Components.

(OR)

- 10. Explain the Methods to develop Fitness.
- 11. Define Health and Wellness and explain about HELP Philosophy.

(OR)

- 12. Explain the facts about Health and Wellness.
- 13. Explain the Physiological changes occur due to Hypo-Kinetism .

(OR)

14. Describe the state of Obesity and exercises to control Obesity.

15. Describe the constituents of Nutrition..

(OR)

16. Explain the role of nutrition in sports performance.

17. Describe the effects of over training and excessive exercise on Health.

(OR)

18. Explain the stress relaxation exercises.