CURRICULUM FRAMEWORKTWO-YEAR M.P.ED. PROGRAMME



DEPARTMENT OF PHYSICAL EDUCATION, YOGA AND SPORTS SCIENCE

GURU GHASIDAS VISHWAVIDYALAYA BILASPUR (C.G.)



MODEL SYLLABUS STRUCTURE FOR TWO YEARS M. P. Ed. PROGRAMME (FOUR SEMESTERS)(CBCS)

DEPARTMENT OF PHYSICAL EDUCATION, YOGA AND SPORTS SCIENCE

GURU GHASIDAS VISHWAVIDYALAYA BILASPUR (C.G.) SCHEME OF EXAMINATION M.P.ED. PROGRAMME M.P.ED. SEMESTER – I

Paper	Subject	Total Hours	Credit	Internal	External	Total		
THEORY (400)								
PEMATTI	Journalism & Mass Communication	3	3	30	70	100		
PEMATTII	Educational Technology in Physical Education	3	3	30	70	100		
PEMATTIII	Research Processes in Physical Education & Sports Sciences	3	3	30	70	100		
PEMATPI /	Information & Communication Technology (ICT) in Physical	3	3	30	70	100		
PEMATPII	Education OR Sports Technology							
	PRACTICAL (400)		•	•		•		
PEMALTI	Track and Field- I (Running & Jumping)	6	3	30	70	100		
PEMALTII	Practical Sports Sciences	6	3	30	70	100		
PEMALTIII	Layouts, Preparation, Markings & Maintenance of Play Fields	6	3	30	70	100		
PEMALTIV	Coaching Lesson of Track and Field	6	3	30	70	100		
	TOTAL	36	24	240	560	800		

M.P.ED. SEMESTER – II

Paper	Subject	Total	Credit	Internal	External	Total
		Hours				
THE	ORY (400)					
PEMBTTI	Applied Statistics in Physical	3	3	30	70	100
	Education & Sports Sciences					
PEMBTTII	Health Education & Sports Nutrition	3	3	30	70	100
PEMBTTIII	Yogic Sciences	3	3	30	70	100
PEMBTPI /	Sports Management and Curriculum	3	3	30	70	100
PEMBTPII	Design in Physical Education					
	OR					
	Sports Journalism and Mass Media					
	-					
	PRACTICAL (400)					
PEMBLTI	Track & Field-I (Throwing Events)	6	3	30	70	100
PEMBLTII	Class Room Teaching	6	3	30	70	100
PEMBLTIII	Yoga	6	3	30	70	100
PEMBLTIV	Officiating Lesson of Track & Field	6	3	30	70	100
	TOTAL	36	24	240	560	800

M.P.ED. SEMESTER – III

Paper	Subject	Total	Credit	Internal	External	Total
		Hours				

ТНЕОН	RY (400)					
PEMCTTI	Test, Measurement & Evaluation	3	3	30	70	100
	in Physical Education					
PEMCTTII	Scientific Principles of Sports	3	3	30	70	100
	Training					
PEMCTTIII	Athletic Care & Rehabilitation	3	3	30	70	100
PEMCTPI /	Physical Fitness & Wellness	3	3	30	70	100
PEMCTPII	OR					
	Dissertation					
]	PRACTICAL (400)					
PEMCLTI	Game Specialisation (Theory)	6	3	30	70	100
PEMCLTII	Teaching Lesson of Game	6	3	30	70	100
	Specialisation					
PEMCLTIII	Aerobics & Zumba	6	3	30	70	100
DEMCI TIV	Mione Teachine		2	20	70	100
PEMCLTIV	Micro-Teaching	6	3	30	70	100
	TOTAL	36	24	240	560	800

M.P.ED. SEMESTER – IV

Paper	Subject	Total	Credit	Internal	External	Total
		Hours				
TH	HEORY (400)					
PEMDTTI	Physiology of Exercises	3	3	30	70	100
PEMDTTII	Sports Biomechanics &	3	3	30	70	100
	Kinesiology					
PEMDTTIII	Sports Psychology	3	3	30	70	100
PEMDTPI/	Sports Medicine	3	3	30	70	100
PEMDTPII	OR					
	Sports engineering					
PRACTICAL	(400)					
PEMDLTI	Game Specialisation (Practical)	6	3	30	70	100
PEMDLTII	Coaching Lesson of Game	6	3	30	70	100
	Specialisation					
PEMDLTIII	Officiating Lesson of Game	6	3	30	70	100
	Specialisation					
PEMDLTIV	Strength & Conditioning	6	3	30	70	100
	Practicals					
	TOTAL	36	24	240	560	800
		144	96	960	224	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.

Semester-I

Theory Courses

PEMATTI - JOURNALISM AND MASS COMMUNICATION IN SPORTS

Course Objectives: The objectives of this course to enable the student to pursue a career in sports journalism, with the basic essential tools required to enter that field Report, interview, write bulletins compile and writing features in this field.

Course Outcomes: At the end of the course the student should be able to:

- 1. Know about the leading national and International sports news agencies.
- 2. How to seek accreditation to sporting events and to report on such events.
- 3. Demonstrate analytic skills in relation to reporting sporting events
 Produce a number of assignments that demonstrate their own style and perception of Events.

UNIT I- INTRODUCTION

Concept, Meaning and Definition of Journalism.

Scope, Principles and Ethics of Journalism.

Concept, Meaning, and Definition of Sports Journalism

Concept, Meaning and scope ofmass communication.

Role of sports journalism and mass communication in promoting sports.

UNIT II- SPORTS BULLETIN

Sports events and its reporting

Leading national and International sports news agencies

Concept and structure of Sports Bulletin

Type of Bulletin-Role of Journalism in the field of Physical Education.

General news reporting and sports reporting

UNIT III-MASSCOMMUNICATION AND SOCIAL MEDIA

Mass Communication electronic media

- i. Radio and T.V. commentary
- ii. Social media, Facebook, twitter, WhatsApp etc

Merits and Demerits of electronic media

Merits and Demerits of social media

UNIT IV- MASS CUMMUNICATION PRINT MEDIA

Mass Communication Print Media

- i. News Paper,
- ii. sports magazine
- iii. Sports journals and Periodicals

Merits and Demerits of print media

Sports Photography: Equipment's- Editing-publishing

Sports journalism- General news reporting and sports reporting. Methods of sports reporting. Interview with and Elite players and Coach.

UNIT-V REPORT WRITING ON SPORTS

Brief review of Olympic games, Asian games, Common wealth games, world cup, National games and Indian traditional games. Preparing reports on Annual sports meet for publication in newspaper.

Practical assignments to observe the matches and prepare report and news of the same; visit to newspaper office and T.V. centre to know various departments and their working.

Collection of Album of newspaper cutting of sports news.

- 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: SurjectPublication
- ▶ Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
- ➤ Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
- ➤ Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
- MohitChakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka
- > Publication,.
- ➤ Padmanabhan. A &Perumal A (2009), Science and Art of Living, Madurai: PakayathiPublication
- ➤ 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.SterlingpublicationPvt. Ltd.
- ➤ Venkataiah. N (2009) Value Education, New Delhi: APH Publishing Corporation.

Semester-I

Theory Courses

PEMATTII-EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION

Course Objectives: The objective of this course is to provide knowledge about education technology and communication technology. The students will know about Instructional Strategies and Media for Instruction.

Course Outcomes: At the end of the course the student should be able to:

- 1. State the meaning of Education Technology and Communication types.
- 2. Concept, Elements, Process & Types of Communication.
- 3. Goal Setting, Task Analysis, Content Analysis
- 4. Audio Visual Media in Physical Education
- 5. New Horizons of 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.

Unit II Systems Approach to Physical Education and Communication

Systems Approach to Education and its Components:

Goal Setting, Task Analysis, Content Analysis, Context Analysis and Evaluation Strategies; Instructional Strategies and Media for Instruction.

Effectiveness of Communication in instructional system; Communication Modes, Barriers and Process of Communication.

Unit III Instructional Design

Instructional Design: Concept, Views.

Process and stages of Development of Instructional Design.

Overview of Models of Instructional Design;

Instructional Design for Competency Based Teaching:

Models for Development of Self Learning Material.

Unit IV Audio Visual Media in Physical Education

Audio-visual media - meaning, importance and various forms Audio/Radio:

Broadcast and audio recordings - strengths and Limitations, criteria for selection of instructional units, script writing, pre-production, post-production process and practices, Audio Conferencing and Interactive Radio Conference.

Video/Educational Television: Telecast and Video Recordings Strengths and limitations, Use of Television and CCTV in instruction and Training, Video Conferencing, SITE experiment, countrywide classroom project and Satellite based instructions.

Use of animation films for the development of children's imagination.

Unit V New Horizons of Educational Technology

Recent innovations in the area of ET interactive video - Hypertext, video-texts, optical fiber technology - laser disk, computer conferencing. etc.

Procedure and organization of Teleconferencing/Interactive video-experiences of institutions, schools and universities.

Recent experiments in the third world countries and pointers for, India with reference to Physical education.

Recent trends of Research in Educational Technology and its future with reference to education.

- 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, MadanLal, 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), 1952.

Semester-I

Theory Courses PEMATTIII- RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS

Course Objectives: The objectives of this course are to expose the students to the range of research methods, to make familiar them with research steps and publication ethics, and provide guidance in the essentials of research report writing by using.

SCIENCES

Course Outcomes: It is expected that the students will be able to conduct thesis work on any topic, and will also be able to analyse qualitative and quantitative data, to write research proposal and report. At the end of the course, the students will be able to:

- 1. To define research and describe the needs, nature and classify of research process and research methods.
- 2. To understand the processes and requirements for conducting successful research in physical education and sports.
- 3. To understand the process of sampling, the uses of questionnaires as data-gathering instruments, how a survey is carried out in terms of process and method, the uses of surveys and to be able to capture their own data.
- 4. Students develop testable hypotheses, differentiate research design, evaluate aptness of research conclusions, and generalize them appropriately.
- 5. To understand the mechanics of writing research proposal and report writing.

UNIT I – Introduction of Educational Research

Meaning and Definition of Research

Nature and Characteristics of Research

Needs of Research in Physical Education

Unscientific Versus Scientific Methods of Problem Solving

Classification of Research – Basic and Applied

UNIT II –Developing the Research Problem

Identifying the Research Problem -Locating the Research Problem,

Criteria in Selecting the Research Problem

Meaning, Types and Formulation of Research Hypothesis

Limitations and Delimitations

Needs of Significance of the Study

Survey of Related literature (Need, Purpose and its types)

Sampling and its types- Probability and Non- Probability Sampling Techniques

UNIT III – Methods of Research

Types of Research (Meaning, Definition and Purposes)

Analytical Research - Historical Research,

Descriptive Research -Survey Research, Tools of Survey Research (Questionnaire Method and Interview Method), Questionnaire Construction and Development, Case Study, Developmental Research, Normative Survey & Factors affecting it.

Experimental Research and Designs

Qualitative Research

UNIT IV - Ethical Issues in Research and Scholarship

Areas of Scientific Dishonesty Ethical issues regarding copyright

Working with faculty

Protecting Human Participants

UNIT V - Research Proposal and Report

Basic writing Guidelines
Thesis and Dissertation format
Method of Writing Research proposal
Mechanics of writing Research Report
Method of writing abstract and full paper
Making Oral and Poster Presentations

- ▶ Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
- > Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, LondonlRoutledge Press
- > Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics;
- ➤ Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi Moses, A. K. (1995) Thesis Writing Format, Chennai; PoompugarPathippagam
- Rothstain, 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, NewDelhi.

Semester-I

Theory Courses

PEMATPI-INFORMATION & COMMUNICATION TECHNOLOGY (ICT) IN PHYSICAL EDUCATION (Elective)

Course Objectives: The objective of this course is to provide knowledge about information technology and communication technology. The students will know about computer, ICT Integration in Teaching Learning Process.

Course Outcomes: At the end of the course the student should be able to:

- 1. State the meaning of information technology and communication technology.
- 2. Concept, Elements, Process & Types of Communication.
- 3. Concept & Importance of ICT.
- 4. Fundamentals of Computers and MS Office Applications
- 5. ICT in Teaching Learning Process Project Based Learning.
- 6. Justify the need & Significance of ICT in Education.
- 7. E-Learning & Web Based Learning

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

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

Semester-I

Theory Courses PEMATPII - SPORTS TECHNOLOGY (Elective)

Course Objectives: Objective of the course enable students to understand the meaning, nature, need and purpose of the sports technology, science of sports materials.

Course Outcomes: On completion of the course the student shall understand the following concepts:

- 1. Meaning, definition, purpose, advantages and applications Sports Technology.
- 2. Knowledge of various surfaces of playfields
- 3. Knowledge of latest equipment's in the sports field.
- **4.** Knowledge of various types of sports playfield.

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, closedcelland 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.

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.

- ➤ 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: JaicoPublisher.
- ▶ John Mongilo, (2001), "Nano Technology 101 "New York: Green wood publishing group.
- Walia, J.S. Principles and Methods of Education (Paul Publishers, Jullandhar), 1999.
- 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

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Semester-II Theory Courses

PEMBTTI- APPLIED STATICTICS IN PHYSICAL EDUCATION AND SPORTS

Course Objectives: The objectives of this course are to expose the students to the brief range of statistical knowledge, to make familiar them with basics of statistical analysis, and provide guidance in the essentials of statistical models by using.

Course Outcomes: - On completion of the course the student shall understand the following concepts:

- 1. Need for statistics in physical education and research
- 2. Measures of Central Tendency and dispersion and their uses
- 3. Meaning and importance of graphical representation of data
- 4. Knowledge of Inferential and Comparative Statistics
- **5.** Application of various statistical techniques

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 and purpose 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.

- ▶ 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.

Semester-II

Theory Courses

PEMBTTII- HEALTH EDUCATION AND SPORTS NURTITION

Course Objectives: Objective of the course enable students to understand the meaning of health and relationships among the various aspects of health; analyze the principles and characteristics of health education; Understand the importance of the hygiene and practices related to maintenance and promotions of Health; Prepare obligatory measures to prevent the contemporary health problems which are related to the Community; and understand the importance of safety education for preventing accidents and its general principles.

Course Outcomes: Outcome of the course, students will be able to:

- 1. Illustrate the Perception of Health Education, and its hazards. To interpret the Individual, family, community and national health.
- 2. Understand the importance of Hygiene in food and environment and estimate food poisoning and allergies.
- 3. Survey the health conditions in rural, metropolitan and urban areas and sketch the Role of W.H.O.
- 4. Recommend the first aid procedure involved and order the advantages in first aid.
- 5. Role of safety education and its Principles and Procedures for life situation and validate it.

Unit - I Health Education

Health- Meaning, Definition, Concept, Dimensions, Spectrum and Determinants Health Education- Meaning, Definition, Aim, objectives and Principles Health Instruction, Health Supervision Health Service and guiding instruction in personal hygiene

Unit - II Health Problems in India

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

Unit- III – Hygiene and Health

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

Unit – IV- Introduction to Sports Nutrition

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

Unit – V Nutrition and Weight Management

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

- ➤ Bucher, Charles A. "Administration of Health and Physical Education Programme". Delbert, Oberteuffer, ET. Al." The School Health Education".
- ➤ Ghosh, B.N. "Treaties of Hygiene and Public Health".
- ➤ Hanlon, John J. "Principles of Public Health Administration" 2003. Turner, C.E. "The School Health and Health Education".
- Moss and et. At. "Health Education" (National Education Association of U.T.A.)
- Nemir A. 'The School Health Education' (Harber and Brothers, New York). Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc.
- ➤ Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended. Angus and Robertson.
- Terras S. (1994) Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons.

Semester-II Theory Courses

PEMBTTIII-YOGIC SCIENCES

Course Objectives: The objective of this course is that the student gets a clear understanding of Yoga, concept of Yogic Practices and Role of Yoga in Psychological Preparation of athlete.

Course Outcomes: On completion of the course the student shall understand the following concepts:

- 1. Students will gain an in-depth understanding of the philosophical foundations of yoga and the key concepts from classical texts such as the Yoga Sutras of Patanjali and Astanga yoga and also the concept of yogic practices.
- 2. Students will understand the ethical principles inherent in yoga philosophy (such as yamas and niyamas), and how these can be incorporated into daily life and teaching practices.
- 3. Students will demonstrate proficiency in performing various yogic practices such as asanas (postures), pranayama (breathing techniques), dhyana (meditation).
- 4. Students will learn about various types of Nadis and Chakras with their benefits.
- 5. Students will be able to apply kriyas (cleansing techniques) with proper alignment and understanding of their physiological and psychological benefits.
- 6. Students will learn various forms of mudras and how to integrate mudras in yoga practices for various techniques of mediation with their benefits.
- 7. Students will gain knowledge of yoga therapy and how to use yogic practices to manage or alleviate various lifestyle-related disorders, including hypertension, diabetes, obesity, anxiety, and depression.

Students will develop the ability to critically analyze and interpret research on the scientific benefits of yoga, including its effects on physiological systems such as the cardiovascular, $\mathbf{Unit}\ \mathbf{I} - \mathbf{Introduction}$

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 – Diet – Age–Sunbathing.

Unit II – Aasanas and Pranayam

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

Unit III – Krivas

Shat Kriyas- Meaning, Techniques and Benefits of Neti –Dhati – Kapalapathi- Trataka – Nauli – Basti, Bandhas: Meaning, Techniques and Benefits of JalendraBandha, JihvaBandha, UddiyanaBandha, MulaBandha.

Unit IV - Mudras

Meaning, Techniques and Benefits of Gyan Mudra, Shoonya Mudra, Apaan Mudra, PranaMudra, VayuMudra, Pritibhi Mudra, Varun Mudra, Surya Mudra, Ling Mudra: Meaning, Techniques and Benefits of Meditation.

Unit V – Yoga and Sports

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

Note: Practicals may be designed and arranged internally.

- George Feuerstein, (1975). Text Book of Yoga. London: MotilalBansaridass Publishers (P) Ltd.
- > Gore, (1990), Anatomy and Physiology of YogacPractices.Lonavata: KanchanPrkashan.
- 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.
- KarbelkarN.V.(1993) PatanjalYogasutraBhashya (Marathi Edition) Amravati: Hanuman VyayamPrasarakMandal
- ➤ Kenghe.C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): Historical Background, Varanasi: BharataManishai.
- Moorthy A.M. & Alagesan. S. (2004) Yoga Therapy. Coimbatore: Teachers Publication House.
- Swami Kuvalayanda, (1998), Asanas. Lonavala: Kaivalyadhama.
- Swami SatyananadaSarasvati. (1989), Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga.
- > Swami SatyanandaSaraswathi. (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 ParkarPublication.
- Tiwari O.P. (1998), Asanas-Why and How.Lonavala: Kaivalyadham

Semester-II

Theory Courses

PEMBTPI-SPORTS MANAGEMENT AND CURRICULUM DESIGN IN PHYSICAL EDUCATION (Elective)

Course Objectives: Objectives of the course enable students to understand the management principles and guidelines. Understand principles of public relation. Understand how to utilize Curriculum Source.

Course Outcomes: of the course, students will be able to:

- 1. Measure class management and presentation techniques application of organization management.
- 2. Generalize all physical activities for professional enhancement they will becomes leader of Field.
- 3. Evaluate various types of tournament to focus professionalism.
- 4. Understand the benefit and drawbacks of personnel management and their policies.
- 5. Prepare standard and nonstandard sports meet in colleges.

UNIT I – Introduction to Sports Management

Meaning and Definition of Management

Theories of Management

Meaning and Definition of Sports Management

Importance Sports Management

Basic Principles and Procedures of Sports Management

Functions of Sports Management.

UNIT II – Personnel Management

Personnel Management:

Objectives of Personnel Management,

Personnel Policies, Role of Personnel Manager in an organization, Personnel

Recruitment and selection

Management Guidelines for School, Colleges Sports Programs,

Management Problems in Sports event programme, Community Based Physical Education And Sports program

UNIT III – Equipments and Public Relation

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

Principles of Public Relation – Public Relations in School and Communities – Public Relation and the Media

UNIT IV - Curriculum

Meaning and Definition of Curriculum. Principles of Curriculum Construction: Students Centred, Activity centred, Community centred, Forward looking principle, Principles of Integration, Theories of curriculum development, Conservative (Preservation of Culture), Relevance, flexibility, quality, contextually and plurality

UNIT V – Curriculum Sources

Factors that affecting curriculum: Sources of Curriculum materials – text books –

Journals – Dictionaries, Encyclopaedias, 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

- 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.

Semester-II

Theory Courses

PEMBTPII- SPORTS JOURNALISM AND MASS MEDIA (Elective)

Course Objectives: The objectives of this course are to expose the students about the journalism, ethics of journalism, sports bulletin, mass media and report writing on Sports.

Course Outcomes: On completion of the course the student shall understand the following concepts:

- 1. Concept of journalism and procedure of reporting sports events
- 2. Role of Mass media, in sports and Radio/TV commentary
- 3. Procedure of reporting games and organizing press meet
- 4. Evaluation of news and visiting method to media offices

UNIT I Introduction

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

UNIT II Sports Bulletin

Concept of Sports Bulletin: Journalism and sports education – Structure of sports bulletin, 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, 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.

UNIT -V Journalism

Sports Journalism – General news reporting and sports reporting.Methods of Sports reporting.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.

- 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: SurjeetPublication
- Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
- ▶ Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
- ➤ Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
- MohitChakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka
- Publication,.
- Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: PakavathiPublication
- 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.SterlingpublicationPvt. Ltd.
- Venkataiah. N (2009) Value Education, New Delhi: APH Publishing Corporation.

Semester-III

PEMCTTI-TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

Course Objectives: Objective of the course enable students to understand the meaning, nature, need and scope of the testing procedure to find the performance of the sports persons.

Course Outcomes: At the end of the course, students will be able to:

- 1. Identify the values of test and measurement with application backup.
- 2. Practice Criteria of test with the norms of validity, reliability and objectivity.
- 3. Plan Physical fitness measurements for developing speed, endurance, strength and Flexibility.
- 4. Argue some of the standardized test was learned such as Kraus welder test, Cooper 12 Minute's test which may enable them to administer test.
- 5. Design the physical education test programme in comparison with different sports and games.

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), Roger's physical fitness Index. Cardio vascular test, Harvard step test, 12 minutes run / walk 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.

UNIT V – Skill Tests

Specific Sports Skill Test: Badminton: Miller Wall Volley Test. Basketball: Johnson Basketball Test. Hockey: Harban's Hockey Test, Volleyball: Russell Lange Volleyball Test, Brady Volleyball Test. Football: Johnson Soccer Test, Mc-Donald Soccer Test. Tennis: Dyer Tennis Test.

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. Mosby Company
- Getchell B (1979) Physical Fitness A Way of Life, 2nd Edition New York, John Wiley and Sons, Inc
- ➤ Jenson, Clayne R and Cynt ha, C. Hirst (1980) Measurement in Physical Education and Athletics, New York, Macmillan Publising Co. Inc
- ➤ Kansal D.K. (1996), "Test and Measurement in Sports and Physical Education, New Delhi: DVS Publications
- ➤ Krishnamurthy (2007) Evaluation in Physical Education and Sports, New Delhi; Ajay Verma Publication
- ➤ Vivian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription, 3rd Edition, Dallas TX: The Cooper Institute for Aerobics Research
- ➤ 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

Semester-III

PEMCTTII- SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

COURSE OBJECTIVES: This course will enable students to promote concepts of scientific sports training approach. To describe evident facts about training load, adaptation and recovery. To provide diagnosis to improve motor components. To inculcate planned sports training practices for efficient sports performance.

COURSE OUTCOMES: Specific skills and competencies expected from the students who complete this course include the following:

- 1. Understand scientific sports training means and methods patterns.
- 2. Understand importance and application of training load, adaptation, and recovery to improve sports performance.
- 3. Enhance the understanding about means and methods to develop motor components.
- 4. Encourage effective sports training formulation and regulation with correct feedback.
- 5. Focus on Long Term Athlete Development (LTAD).

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 - Periodization: Meaning, Single, Double and Multiple Periodization, 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

- > BeotraAlka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.
- > Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall.
- 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: Jones and Bartlett Publications
- YograjThani (2003), Sports Training, Delhi: Sports Publications.

PEMCTTIII - ATHLETIC CARE AND REHABILITATION

Course Objectives: The objectives of this course are to expose the students to the range of athletic care and rehabilitation, to make familiar them with sports injuries and their management and provide guidance in the postural deformities, massage and rehabilitation exercises.

Course Outcomes: At the end of the course, the student shall understand the concepts:

- 1. Definition and objectives of corrective physical Education
- 2. Resisted exercise for Rehabilitation and history of Massage Various techniques of massage
- **3.** Method of treatment for various types 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 bad posture.

Posture test – Examination of the spine.

Unit II - Posture

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

Unit III – Rehabilitation Exercises

Principles of Rehabilitation, Passive & Active, Assisted & Resisted exercise for Rehabilitation, Stretching Exercises.

Unit IV - Massage

Brief history of massage – Massage as an aid for relaxation.

Physical, Physiological and Psychological effects of massage. Classification of Massage – Indication /Contra indication of Massage

Practical on massage techniques

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 application of cold and heat, infrared rays – Ultrasonic, Therapy – Short wave diathermy therapy.

Principles and techniques of Strapping and Bandages.

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

- **Dohenty. J. Meno.Wetb, Moder** D (2000) Track & Field, Englewood Cliffs, Prentice Hal Inc.
- Lace, M. V. (1951) Massage and Medical Gymnastics, London: J & A Churchill Ltd.
- ➤ McOoyand Young (1954) Tests and Measurement, New York: Appleton Century.
- Naro, C. L. (1967) Manual of Massage and, Movement, London: Febra and Febra Ltd.

- Rathbome, J.I. (1965) Corrective Physical education, London: W.B. Saunders & Co.
- Stafford and Kelly, (1968) Preventive and Corrective Physical Education, New York.

Semester-III

PEMCTPI - PHYSICAL FITNESS AND WELLNESS (ELECTIVE)

Course Objectives: The objective of this course is to provide a clear understanding of fitness and wellness knowledge to the students. This course will also provide the knowledge to students about of various aspects of nutrition, aerobic and anaerobic exercises.

Course Outcomes: At the end of the course, students will be able to-

- 1. Understand importance of fitness and wellness in modern era.
- 2. Get advantage with the knowledge of various health benefits through fitness and wellness.
- 3. Understand nutrition, aerobic and anaerobic exercises.
- 4. Understand different principles of exercise program.

Unit I – Introduction

Meaning and definition of Physical Fitness and Physical Fitness Concepts and its components.

Physiological principles involved in physical fitness.

Leisure time physical activity and identify opportunities in the community to participate in this activity.

Current trends in fitness and conditioning.

Understanding of Wellness and its dimensions.

Relationship between physical activity and lifelong wellness.

Unit II - Nutrition

Nutrients; Nutrition labelling information, Food Choices, Food Guide Pyramid, Influences on food choices-social, economic, cultural, food sources.

Weight Management-proper practices to maintain, lose and gain.

Eating Disorders, Proper hydration, Female Athlete Triad.

Unit III – Aerobic Exercise

Cardio respiratory Endurance Training - proper warm-up, cool down, and stretching, monitoring heart rates during activity.

Assessment of cardio respiratory fitness and set goals to maintain or improve fitness levels.

Cardio respiratory activities including i.e. power walking, pacer test, interval training, incline running, distance running, aerobics and circuits.

Cardio respiratory Endurance Training for different age groups.

Unit IV – Anaerobic Exercise

Resistance Training for Muscular Strength and Endurance; principles of resistance training,

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.

Weight training concepts for women.

Unit V – Flexibility Exercise

Flexibility Training, Relaxation Techniques and Core Training. Safety techniques

(Stretching protocol; breathing and relaxation techniques) types of flexibility exercises (i.e.Dynamic, static).

Develop basic competency in relaxation and breathing techniques.

Pilates and Yoga.

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surject Publication Delhi 1989.
- Difficore 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, KarynHartiger& 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.

PEMCTPII- DISSERTATION(ELECTIVE)

Course Objectives: The objectives of this course are to expose the students to the range of research methods, to make familiar them with research steps and publication ethics, and provide guidance in the essentials of research report writing by using.

Course Outcomes: At the end of the course, the students will be able conduct thesis work on any topic, and will also be able to analyse qualitative and quantitative data, to write research proposal and report.

Instructions:

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

PEMDTTI -PHYSIOLOGY OF EXERCISES

Course Objectives: The objective of this course is that the student gets a clear understanding of physiological concepts & principles of various systems functioning in the body. Also, the student will gain the proficiency in performing laboratory techniques and subsequent analysis of data commonly used in Human Performance Laboratory. This course will also provide the students knowledge of and show ability to carry out the research process in a collaborative environment.

Course Outcomes: At the end of the course, students will be able to:

- 1. Explain the structure and function of skeletal muscle & nervous system and is influenced by exercise training. Discuss the function of the nervous system in neural control of human movement.
- 2. Discuss the structure of the respiratory system and it responds to exercise of different intensities.
- 3. Understand how the cardio respiratory system functions and is influenced by exercise training.
- 4. Explain the structure and function of respiratory system. And its effect of exercise on respiratory system.
- 5. Understanding the 3 energy systems and how our body converts food to energy.
- 6. Describe some of the chronic physiological changes in response to climatic conditions and sports performance.

NOTE: - This paper shall consist of five units. Each student is required to attempt five questions. Questions shall be asked from each unit. Each unit carries 20 marks.

UNIT I – Skeletal Muscles and Neuro-muscular concepts.

Macro & Micro structure of the skeletal muscle.

Chemical composition of skeletal muscle.

Sliding Filament Theory of Muscular contraction.

Effect of exercises and training on the muscular system.

Transmission of nerve impulses across neuron.

Transmission of impulse across synapse.

Neuro-muscular junction and transmission of nerve impulse across it.

Propioception and kinesthesis. Muscle Tone, Posture and Equilibrium

UNIT II – Cardiovascular System and Exercise.

Conduction System of the Heart - Cardiac Cycle, Stroke Volume, Cardiac Output. Cardiovascular System: Effect of exercise and training on the Cardio vascular system. Regulation of blood flow during rest and exercise.

UNIT III – Respiratory System and Exercise.

Mechanics of Breathing – Minute ventilation, Ventilation at Rest and During Exercise.

Exchange of gases in lungs and tissues. Anaerobic Threshold, Oxygen Debt.

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.

EPOC, Lactacid and Alactacid component.

Short duration high intensity exercises and Long duration exercises.

UNIT V - Climatic conditions and sports performance, ageing.

Variation in Temperature – Concept of thermoregulation in relation to sports performance in hot climate, Cool Climate, high altitude.

Physiological aspects of ageing. Delayed ageing.

Women and sports.

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

- Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: PoompugarPathipagam.
- BeotraAlka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
- Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
- David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
- Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
- Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
- Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.
- SandhyaTiwari. (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.

PEMDTTII -SPORTS BIOMECHANICS AND KINESIOLOGY

Course Objectives: To provide the basic concept of Kinesiology, Sports Biomechanics, muscle mechanics and understanding of orthopedic sports biomechanics. Develop the understanding of application of kinematics, kinetics in human locomotion. Development of knowledge in analyzing the fundamental human movements using different methods of investigation technique.

Course Outcomes: Specific skills and competencies expected from the students who complete this course include the following:

- 1. By the end of the semester, it is expected that the students will be able to know the importance of Kinesiology and Biomechanics in the area of physical education and sport.
- 2. The students will be able to understand about the anatomical terms, structure, composition, properties and functions of skeletal muscles.
- 3. It is expected that the students will be able to able to demonstrate and apply basic mechanical laws of physics principles to human movements.
- 4. It is expected that the students will be able to identify the relationship between anatomical structure and mechanical principles in relation to the performance of basic and complex motor tasks.
- 5. It is expected that the students will be able to critically examine the performance of physical activity skills and to evaluate the performance against the principles of efficient movement.

UNIT I-Introduction

Meaning of applied Kinesiology and Sports Biomechanics

Scope of applied Kinesiology and Sports Biomechanics

Axes and Planes

Role of Centre of gravity and line of gravity in sports

Vectors and Scalars

UNIT II - Muscle Mechanics

Major Muscles around Shoulder: Origin, insertion and actions Major Muscles around Elbow: Origin, insertion and actions Major Muscles around Trunk: Origin, insertion and actions Major Muscles around Hip: Origin, insertion and actions

Major Muscles around Knee and Ankle: Origin, insertion and actions

UNIT III-Force, Projectile and Lever

Force: Sources, Types, Force applied at angle, Spin, Pressure, Friction, Fluid Friction and Buoyancy

Freely falling bodies: Projectile and factors affecting projectile

Stability: Factors affecting stability,

Work, Power and Energy: Kinetic and potential energy

Lever: Types of lever and its application

UNIT IV-Biomechanical analysis of fundamental movements

Walking

Running

Jumping

Pulling Pushing

UNIT V-Movement analysis and methods of investigation

Kinesiological, Mechanical and Biomechanical Analysis Qualitative, Quantitative and Predictive Analysis Filming fundamental and photo instrumentation Photography and Videography Methods of determining center of gravity in human body

- > Hay, James G. The Biomechanics of Sports Techniques (Englewood Cliffs N.J. Prentice Hall, Inc. 1970)
- ➤ Hay, James G. The Anatomical and Mechanical Basis of Human Motion (Englewood Cliffs N.J. Prentice Hall, Inc. 1982)
- ▶ Bunn, John W. Scientific Principles of Coaching (Engle Wood cliffs: N.J. Prentice Hall Inc. 1972)
- Rasch and Burke Kinesiology and Applied Anatomy (Philadelphia: Lea and Fibger, 1967)
- Scott, M.G. Analysis of Human Motion (New York, 2005)
- Thompson, Flyod Manual of Structural Kinesiology (McGraw Hill, Singapore, 2004)
- ➤ Carr Gerry, Mechanics of Sports, (Human Kinetics 1997)
- Wells K.P. Kinesiology (Philadelphia: W.B. Saunders Co. 1966)

PEMDTTIII -SPORTS PSYCHOLOGY

Course Objectives: The objective of this subject is to learn the theories, concepts, and intervention techniques of sport psychology. Topics covered will include motivation theory applied to sport, team dynamics, psychological skills training, the psychology of sport injury, and burnout in sports.

Course Outcomes: At the end of the course the student should be able to:

- 1. Explain group mechanisms and group psychology in a sports context.
- 2. Reflect upon motivational psychology as applied to sports activities.
- 3. Formulate relevant constructs of exercise psychology
- 4. Demonstrate the ability to discuss sociological theories, concepts, and ideasin large and small groups and to express empirically as well as theoretically-based opinions.
- 5. To apply core sociological theories to specific social problems in order to analyse social problems

UNIT I - Introduction

Meaning, Definition, History, Need and Importance of Sports Psychology

Motor Learning: Basic Considerations in Motor Learning

Principles of Motor skill learning

Motor Perception: Factors Affecting Perception Cognitive process: thinking, memory and learning

Personality: Dimension, theories of personality, measurement of personality.

Effects of Personality on Sports Performance

UNIT II - Motivation

Meaning and Definition, Types of Motivation: Intrinsic, Extrinsic. Achievement

Motivation. Motivation techniques, Impact on sports performance

Factors influencing motivation

Psychological factors affecting sports performance: Emotions, Anxiety aggression, stress, self-confidence, concentration.

UNIT III – Goal Setting

Meaning and Definition, Mental practice and Goal Setting, Process of Goal Setting in Physical Education and Sports

Relaxation: methods of psychological relaxation

Psychological skill training for activation and relaxation

Psychological Tests: Types of Psychological Test.

UNIT IV Sports Sociology

Meaning and Definition – Sports and Socialization of Individual Sports as SocialInstitution

Methods of investigation in sports psychology
Various methods used in sports psychology
Psychological characteristics of Pre, Post and during competition
Long and short term psychological preparation for performance/ competition
Spectators and sports performance

UNIT V – Group Cohesion

Group: Definition and Meaning, Group Size, Groups on Composition, Group Cohesion, Group Intraction, Group Dynamics.

Current Problems in Sports: Women in our Society, Participation pattern among Women, Gender inequalities in Sports.

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

- > 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 SahetyKendre Publishers.
- > Jay Coakley. (2001) Sports in Society Issues and Controversies in International Education, Mc-Craw Seventh
- ➤ Ed.
- ▶ John D Lauther (2000) Psychology of Coaching.NerJersy: Prentice Hall Inc.
- ➤ John D. Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.
- MiroslawVauks& 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 & Dones M.G. (1999) Personality and Performance in Physical Education Sports. London: Hendry Kimpton Publisher

Semester-IV

PEMDTPI - SPORTS MEDICINE (ELECTIVE)

Course Objectives: The objectives of this course are to expose the students to the range of sports medicine, to make familiar them with sports injuries and their treatment, and provide guidance in the essentials of therapeutic exercises, massage and rehabilitation processes.

Course Outcomes: At the end of the course, it is expected that the students will be able to know about sports medicine, sports injuries and its treatment and its scope in the profession of Physical Education and Sports.

- 1. To understand sports medicine, scope and its need.
- 2. To understand the sports medicine within the area of physical Education and sports.
- 3. To understand sports injuries& their rehabilitation process.
- 4. To understand and apply massage techniques.

UNIT I – Introduction

Sports Medicine -Meaning, definition, Scope

Sports Medicine – Need, importance/Role.

Therapeutic exercises -Definition and Principles, Strengthening exercise, Gym ball exercise, Injuries: acute, sub-acute, and chronic.

PRICE -- Advantages and Disadvantages, Aquatic therapy.

UNIT II – Spine Injuries and Exercise

Head, Neck and Spine injuries: Causes and prevention

Flexion, Compression, Hyperextension, Rotation injuries.

Free hand exercises, stretching and strengthening exercise for head neck, spine.

Supporting and aiding techniques and equipment for Head, Neck and Spine injuries.

UNIT III – Upper Extremity Injuries and Exercise

Upper Limb and Thorax Injuries:

Shoulder: Sprain, Strain, Dislocation, and Strapping.

Elbow: Sprain, Strain, Strapping.

Wrist and Fingers: Sprain Strain, Strapping.

Stretching and strengthening exercise for shoulder, Elbow, Wrist and Hand.

Supporting and aiding techniques and equipment for Upper Limb and Thorax Injuries.

UNIT IV – Lower Extremity Injuries and Exercise

Lower Limb and Abdomen Injuries:

Hip: Adductor strain, Dislocation, Strapping.

Knee: Sprain, Strain, Strapping. Ankle: Sprain, Strain, Strapping.

Abdomen: Abdominal wall Contusion, Abdominal muscle strain.

Stretching and strengthening exercise for Hip, knee, ankle and Foot.

Supporting and aiding techniques and equipment for Lower limb and Abdomen injures.

UNIT V – Basic Rehabilitation

Principles of Rehabilitation.

Strapping/Tapping: Definition, Precautions Contraindications.

Proprioceptive neuromuscular facilitation: Definition hold, relax, repeated contractions. Isotonic, Isokinetic, isometric stretching- Advantages, dangers of stretching.

Practicals:Practicalsstapping/tapping/ visit to Physiotherapy Centre/ Gym/health centre to observe treatment / rehabilitation procedure of sports injuries.

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

PEMDTPII - SPORTS ENGINEERING (ELECTIVE)

Course Objectives: The objectives of this course are to expose the students to the range of sports engineering, mechanics of movements, sports dynamics, and facility life cycle costing.

Course Outcomes: At the end of the course the student should understand

- 1. Meaning, purpose, advantages and applications of Sports engineering and technology.
- 2. The current application of sports dynamics for better performance in sports.
- 3. Monitoring and training technology and materials technology to enhance sport performance.
- 4. The current and future impact of technology on building and maintenance

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

Reference

- Franz K. F. et. al., Editor, Rout ledge 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**

DEPARTMENT OF PHYSICAL EDUCATION, YOGA AND SPORTS SCIENCE GURU GHASIDAS VISHWAVIDYALAYA BILASPUR (C.G.) SYLLABUS OF EXAMINATION M.P.ED. PROGRAMME

Semester I

Practicum Course PEMALTI - TRACK AND FIELD-I (RUNNING & JUMPING EVENTS)

Field Marking for all jumping events in a project form with performance testing **Running**

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

Jumping

Field Marking for all jumping events in a project form with performance testing

- Long Jump
- High Jump
- Triple Jump
- Pole Vault: Grip, Carrying, Plantation, Bending, body position in Air, Clearance the bar and landing

Various techniques of all jumps

Fundamental techniques of Take -off, body position in air and landing

Semester I Practicum Course PEMALTII -PRACTICAL SPORTS SCIENCES

(Two practical for each subject)

Practical of Sports Psychology

- Competitive Behaviour
- Motivation Inventory
- Personality Test
- Emotional Intelligence
- Anxiety
- Sportsman Spirit

Physiology of Exercise

- Assessment of Cardio respiratory fitness- Harvard Step test, Coopers 12 min run walk test
- Assessment of Physiological Parameters- Heart Rate, Respiratory Rate and Blood Pressure
- Calculation of Target Heart Rate

- Assessment of Muscular Strength / Endurance- Back and Leg Dynamometer, Hand- Grip Dynamometer
- Assessment of Flexibility- Sit & Reach Flexibility Test

SportsBiomechanics and Kinesiology

- Location of Centre of Gravity (Joint point Method-Segmentation, Suspension)
- Photography
- Videography
- Goniometer

Semester I Practicum Course

PEMALTIII-LAYOUT, PREPARATION, MARKINGS & MAINTENANCE OF PLAY FIELDS

- Layout of game/ sport
- Preparation & Markings
- Maintenance of play fields

Semester I Practicum

PEMALTIV-COACHING LESSONS OF TRACK AND FIELD

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

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

Semester II Practicum Course

PEMBLTI-TRACKS AND FIELD-II (THROWING EVENTS)

Field Marking for all throwing events in a project form with performance testing

- Javelin
- Shot Put
- Discuss
- Hammer
- Basic techniques of grip, stance, execution and follow through
- Various techniques of each event

Semester II Practicum Course

PEMBLTII-CLASS ROOM TEACHING

The students of M.P.Ed – II Semester need to develop proficiency in taking teaching lessons on specific sports sciences. In view of this, the students shall be provided with selected specific teaching experience. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level.

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

Semester II Practicum Course

PEMBLTIII - YOGA

Yoga, Asanas prescribed by Maharshi'Patanjali'(Sitting, Standing and Lying), Kriyas:-ShudhiKriyas, Jalneti, Sutraneti, Dugdhaneti, Kunjal, Nauli, Bhastika, Shatkriya, Pranayams:- Anulom-vilom, Kapalbhati, Meditation

Semester II Practicum Course

PEMBLTIV - OFFICIATING LESSONS OF TRACKAND FIELD

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

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

Semester III Practicum Course

PEMCLTI - GAME SPECIALIZATION (THEORY)

Association / Federation

- International
- National
- State
- District

Rules/ Laws of the game and their Interpretations Officials and their duties Advanced Skills of the game and their development

> Semester III Practicum Course

PEMCLTII- TEACHING LESSONS OF GAME SPECIALIZATION

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

Semester III Practicum Course PEMCLTIII - ZUMBA & AEROBICS

- Warm up &Cool down for aerobics & Zumba.
- Different steps in aerobics & Zumba. Physical fitness components measurement, Preparation of mass display for Aerobics & Zumba. Instructional Methods: Discussion & Demonstration.
- Methods of assessment: By the performance of dance steps from different Latin cultures, aerobics, and Zumba & by class participation, mass display and attendance.

Semester III Practicum Course PEMCLTIV- MICRO TEACHING

Micro teaching - Need, procedure, cycle of operation and uses.

Microteaching -Microteaching cycle- Relevant skills in Micro teaching- Skill of Reinforcement, Skill of Introduction, Skill of Explaining, Skill of Stimulus Variation, Skill of probing questioning, Skill of demonstration and Skill of using Blackboard.

Each student-student practices minimum five skills in small groups under the close supervision of faculty members of the department in simulated condition. All the skills are practiced and evaluated for each student through the semester

Semester IV Practicum Course

PEMDLTI-GAME SPECIALIZATION (PRACTICAL)

Organisation of tournaments and its protocol

Selection procedure of teams

Various tests to measure skill proficiency

Tactics: Individual and collective, Offensive and Defensive, System / Formation if any.

Development of Specific physical components of the game

Semester IV Practicum Course

PEMDLTII- COACHING LESSONS OF GAME SPECIALIZATIONS

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

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

Semester IV Practicum Course PEMDLTIII - OFFICIATING LESSONS OF GAME SPECIALIZATION

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

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

Semester IV Practicum Course

PEMDLTIV-STRENGTH AND CONDITIONING

- Fundamentals of Coaching in Strength and Conditioning
- Energy System and Physiology
- Athlete Assessment & Evaluation
- Periodization + Long Term Athlete Development
- Plan, Prepare and Deliver Strength and Conditioning for Sport
- Program Designing for Resistance, Plyometric, Speed and Agility Training
- Anaerobic & Aerobic Endurance Training
- Building A Foundational Set of Exercises
- Designing Individual Strength and Conditioning Sessions
- Designing A Proper Strength Training Warm-Up
- Injury Prevention
- Overtraining, Recovery Enhancement Techniques
- Pre and Post Training Nutrition