Minutes of the meeting in Board of Studies in Physical Education in Conference Room,

Vice Chancellor's office, V.B.S. Purvanchal University on 27th June 2022, at 11:00 am,

Members Present

Prof. Abhimanyu Singh (External Member)

Prof. Sushil Kumar Gautam (External Member)

Dr. S.N. Singh (Internal Member)

Randhir Kumar (Internal Member)

Smt. Poonam Singh (Internal Member)

Dr. Chandra Bhan Singh (Convenor)

In the First meeting of Board of Studies in Physical Education for the year 2022, the Convener welcomed all the member of the Board of Studies.

Agenda 1: To finalize the Syllabus of MA/MSc in Physical Education (non. Professional Courses).

Resolution 1: The members discussed the Syllabus of MA/MSc in Physical Education . The Board Members resolved that the Syllabus be approved with minor modifications as per the administrative feasibility of V.B.S. Purvanchal University, Jaunpur the modification discussed were:

I. Distribution of marks for theory and practical both will be 75% external evaluation and 25% internal evaluation.

ii.The committee member unanimously resolved that prof. Chandrabhan Singh authorized to prepare draft syllabus of MA/MSc in Physical Education ,which will be circulated among the board members and after incorporating their suggestions (ifany)shall be treated as approved

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(BEING)

Prof. Abhimanyu Singh (External Member)

Prof. Sushil Kumar Gautam (External Member)

Dr. S.N. Singh (Internal Member)

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Smt. Poonam Singh

Dr. Chandra Bhan Singh

(Internal Member)

Randhir Kumar

(Internal Member)

(Convenor)

Paper Code	Paper title Sem-i	Theory/p ractical	credi t	MAX . MARK- 100	
				INTERN AL	EXTER NAL
E020701T	Research Process in Physical Education and Sports Sciences	Theory	4	25	75
E020702T	Applied Statistics in Physical Education and Sports Sciences	Theory	4	25	75
E020703T	Test, Measurement and Evaluation in Physical Education & Sports Sciences	Theory	4	25	75
E020704T	Sports Management	Theory	4	25	75
E020705P	Practical (Sports Practical with specialization in any one: Track&Field/Gymnastics/Yoga/CombativeSport/TeamGame/IndigenousSport/Racket Game)	Practical	4	25	75
E020707R	Major prject (Survey Work) MINER ELECTIVE	Project	4	25	75
	Sem-ii				
E020801T	Sports and Exercise Physiology	Theory	4	25	75
E020802T	Scientific Principles of Sports Training	Theory	4	25	75
E020803T	Yogic Sciences	Theory	4	25	75
E020804T/	(a)Sports Technology	Theory	4	25	75
E020805T	(B) Physical Fitness and Wellness	,			
E020806P	Practical (Sports Practical with specialization in any one: Track&Field/Gymnastics/Yoga/CombativeSport/TeamGame/IndigenousSport/Racket Game)	Practical	4	25	75
E020807R	Major prject (Survey Report)	Project	4	25	75
	Sem-iii				
E020901T	Health Education and Sports Nutrition	Theory	4	25	75
E020902T	Sports Psychology	Theory	4	25	75
E020903T	ICT & Education Technology in Physical	Theory	4	25	75
E020904T/ E020905T	(a)Sports Medicine (b)Sports Journalism and Mass Communication	Theory	4	25	75
E020906P	Practical (Sports Practical with specialization in any one: Track&Field/Gymnastics/ Yoga/CombativeSport/TeamGame/IndigenousSport/Racket Game.)	Practical	4	25	75
E020907R	Major prject(Summer Training)	Project	4	25	75
	Sem-iv				
E021001T	Kinesiology and Sports Biomechanics	Theory	4	25	75
E021002T	Gender, Disability & Inclusive Sport Education	Theory	4	25	75
E021003T	Athletic Care & Rehabilitation	Theory	4	25	75
E021004T	Curriculum Designs in Physical Education	Theory	4	25	75
E021005P	Practical (Sports Practical with specialization in any one:Track&Field/ Yoga	Practical	4	25	75

	/Swimming/CombativeSport/TeamGame/Indigen				
	ousSport/Racket Game.)				
E021006R	Major project(dissertation)	Project	4	25	75

MA Physical Education Semester-i

Course code-E020701T

Course Title: RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS SCIENCES

THE COURSE OBJECTIVES ARE:

- 1. To develop understanding of the basic framework of research process.
- 2. To identify appropriate research topics.
- 3. To identify various sources of information for literature review and data collection.
- 4. Select and define appropriate research problem, parameters and research questions.
- 5. To develop an understanding of various research designs and techniques.
- 6. Write a research proposal and report.
- 7. Organize and conduct a scientific research in a more appropriate manner
- 8. To develop an understanding of the ethical dimensions of conducting applied research.

THE STUDENT LEARNING OUTCOMES ARE:

- 1. To define research and describe the research process and research methods.
- 2. To understand the research context within the area of physical Education and sports.
- To understand the processes and requirements for conducting successful research in physical education and sports.
- 4. Understand and apply basic research methods.
- 5. Students use print and electronic library resources effectively and appropriately.
- 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.
- Understand and apply basic research methods including research design, data analysis, and interpretation.
- Students develop testable hypotheses, differentiate research design, evaluate aptness of research
 conclusions, and generalize them appropriately.
- Students design and conduct quantitative or qualitative research studies in laboratory or field settings.
- Students use research data to formulate or evaluate new research questions, using reason and persuasion in a logical argument.
- 11. To know how to apply the basic aspects of the research process in order to plan and execute a research proposal and research report.
- 12. To be able to present, review and publish scientific articles.

UNIT - 1: INTRODUCTION

- · Meaning and Definition of Research -
- Need, Nature and Scope of research in Physical Education.
- · Classification of Research, Location of Research Problem,
- · Criteria for selection of a problem,
- · Identification of research questions,
- · Research Objectives,
- · Limitation, Delimitation, Hypothesis
- · Qualities of a good researcher

UNIT - II: METHODS OF RESEARCH

Descriptive Methods of Research: Survey Study, Case study,

- Introduction of Historical Research:
 Steps in Historical Research, Sources of Historical Research:
- Primary Data and Secondary Data,
- Historical Criticism: Internal Criticism and External Criticism.
- Experimental Research Meaning, Nature and Importance,
- · Meaning of Variable, Types of Variables.
- Experimental Design Single Group Design, Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design, Factorial Design.
- Tools & Techniques of Data Collecting

UNIT - III: SAMPLING

- Meaning and Definition of Sample and Population.
- Types of Sampling, Probability Methods; Systematic Sampling, cluster sampling, Stratified Sampling.
- Sampling Techniques,
- Area Sampling
- Multistage Sampling.
- · Non- Probability Methods;
- · Convenience Sample,
- Judgment Sampling,
- · Quota Sampling.

UNIT - IV: RESEARCH PROPOSAL AND RESEARCH REPORT

- · Defining Research Project
- · Writing a Research Proposal and Research Report,
- · Footnotes & Bibliography, E-Referencing
- Ethical Issues in Research: Areas of Scientific Dishonesty, Ethical issues regarding copyright.
 Responsibilities of Researcher, Working Ethics with Faculty, Protecting Human Participants,
- Plagiarism

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations

TEXT & REFERENCES:

- Best & Kahn (2003) Research in Education, 10th Ed. New Jersey; Prentice Hall, Inc.
- Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
- Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, Londonl Routledge Press
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illinois;
 Human Kinetics;
- Kamlesh, M. L. (1999) Research Methodology in Physical Education and Sports, New Delhi

- Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar Pathippagam
- 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); Friends Publication, New Delhi

Course Title: APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

THE COURSE OBJECTIVES ARE:

- 1. To completely describe a data set, using appropriate descriptive statistics.
- 2. To interpret a set of descriptive statistics and understand the limitations of each measure.
- 3. Students shall be able to use and apply a wide variety of specific statistical methods.
- 4. Students shall know how to organize, manage, and present data.
- 5. Show ability to explore and organize data for analysis.
- 6. Students shall be able to use and apply a wide variety of specific statistical methods.
- 7. Demonstrate understanding of the properties of probability and probability distributions.
- 8. Demonstrate understanding of the probabilistic foundations of inference.
- 9. Apply inferential methods relating to the means of Normal distributions.

STUDENT LEARNING OUTCOMES:

- 1. Know how to organize, manage, and present data.
- 2. Explore and organize data for analysis.
- 3. Use and apply a wide variety of specific statistical methods.
- 4. Demonstrate understanding of the properties of probability and probability distributions.
- 5. Demonstrate understanding of the probabilistic foundations of inference.
- 6. Apply inferential methods relating to the means of Normal distributions.
- Understand the concept of the sampling distribution of a statistic, and in particular describe the behavior of the sample mean.
- 8. Effectively communicate results of statistical analysis.
- 9. Demonstrate understanding of statistical concepts embedded in their courses.
- 10. Demonstrate proficiency in analyzing data using methods embedded in their courses.
- Demonstrate ability to select appropriate methodologies for analysis based on properties of particular data sets.

UNIT I

- · Meaning and Definition of Statistics,
- · Need and importance of Statistics
- Types of Statistics.
- · Meaning of the terms: Population, Sample,
- Data, Kinds of data. Variables: Discrete, Continuous.
- · Parametric and non-parametric statistics.

UNIT II

- Meaning, uses and construction of frequency table
- · Meaning, Purpose, calculation and advantages of :

Range, Measures of central tendency - Mean, median and mode.

Quartile Deviation, Mean Deviation, Standard Deviation, Probable Error.

Normal Curve: Meaning of probability - Principles of normal curve - Properties of normal curve.

Divergence form normality - Skewness and Kurtosis.

UNIT III

Detailed Syllabus of the MA/MSc IN PHYSsICAL EDUCATION

MA Physical Education Semester-i

Course code-E020703T

Course Title: TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

THE COURSE OBJECTIVES ARE:

- 1. To develop concepts related to Test, Measurement & Evaluation;
- To construct a strong basis in the evaluation techniques through the various test and measurements method used in physical education.
- 3. To analyze the physical ability and performance of an individual in various sports.
- To provide scientific techniques in selection and talent identification through various evaluation and grading process applicable in physical education and sports.
- To develop the skills and techniques for construction of new tests for various need related to specific Sports Skills.

STUDENT LEARNING OUTCOMES ARE:

- 1. Explain the basics of measurement and evaluation of various test and measurement techniques.
- 2. Develop the concepts of measurement and evaluation in physical education and sports
- Develop ability to construct new tests for various need related to Physical Education and Sports
 with scientific authenticity
- 4. To analyze various test and performance related to physical education

UNIT I: Introduction

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

UNIT II: Selection of Construction of Tests

- · Criteria of Test Selection
- · Factors Affecting Scientific Authenticity
- · Procedure to establish Scientific Authenticity
- Construction of Test Knowledge Test & Skill Tests
 Guidelines for constructing objectives and subjective test (Alternate Choice (True/False).
 Multiple Choice, Short Answer & Matching Items)
- Administration of Testing programme, its procedure and follow up

UNIT III: Motor & Physical Fitness Tests

- · Meaning and Definition of Motor Fitness and Physical Fitness.
- · Tests for Motor Fitness;
- · Barrow Motor Ability Test -
- Muscular Fitness Kraus Weber Minimum Muscular Fitness Test.
- AAHPERD Health Related Fitness Battery (revised in 1984),
- ACSM Health Related Physical Fitness Test,
- Roger's Physical Fitness Index.
- Harvard step test. 12 minutes Run / Walk Test,

- Multi-stage Fitness Test (Beep test)
- · Test of Coordinative Ability; Speed; Power

UNIT IV: Anthropometric and Aerobic-Anaerobic Tests

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

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

PRACTICUM: Tests of Unit III & IV should be conducted practically also.

ASSESSMENT RUBRIC: Classroom Test/ Project Work/ Assignments/ Presentations/ Practical Work / Theory lesson plan

TEXT & REFERENCES:

- Bangsbo, J. (1994). Fitness training in football: A scientific approach. Bagsvaerd. Denmark:
- · Ho+Storm.
- Barron, H. M., &Mchee, R. (1997). A practical approach to measurement in physical education.
- · Philadelphia: Lea and Febiger.
- Barron, H.M. & Mchee, R. (1997). A Practical approach to measurement in physical education.
- · Philadelphia: Lea and Febiger.
- Kansal, D.K. (1996). Test and measurement in sports and physical education. New Delhi:
- · D.V.S. Publications.
- 2 years B.P.Ed Curriculum | 40
- Mathews, D.K., (1973). Measurement in physical education, Philadelphia:
- W.B.SoundersCompnay.
- · Pheasant, S. (1996). Body space: anthropometry, ergonomics and design of work. Taylor &
- Francis, New York.
- Phillips, D. A., &Hornak, J. E. (1979). Measurement and evaluation in physical education. New
- · York: John Willey and Sons.
- Sodhi, H.S., & Sidhu, L.S. (1984). Physique and selection of sports- a kinanthropometric study.
- Patiala: Punjab Publishing House.

Course code-E020704T

Course Title: SPORTS MANAGEMENT

COURSE OBJECTIVES:

- To describe organization and administration of sports programmes.
- To analyze and interpret sports philosophy, sports sociology, business systems, sports management, public administration and marketing techniques.
- To develop opportunities to construct & design the curriculum of PE in broader aspects realizing the age group, gender consideration and physiological basis

STUDENT LEARNING OUTCOMES:

Identify issues relevant to modern physical education and sport management.
 Explore the area as a career perspective

Unit I:

- Management: Concept and Principles of Management.
- Sports Management: Definition, Importance.
- Basic Principles and Procedures of Sports Management
- Functions of Sports Management
- Personal Management:
- · Objectives of Personal Management, Personal Policies

Unit II:

- · Management of infrastructure, equipment, finance and personnel.
- · Programme Management:
- · Factors influencing programme development.
- Organisation and Functions of Spots bodies.
- · Competitive Sports Programmes, Benefits,
- Management Guidelines for School, College Sports Programmes,
- · Management Problems in instruction programme,
- Community Based Physical Education and Sports programme.

Unit III:

- · Purchase and Care of 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. Professional Ethics.

Unit - IV: (Practical)

- SWOT Analysis
- Organising sports meet:
 - o Institutional sport event
 - o Community sport event
 - o Fitness Events for children
- Officiating in the institutional tournaments
- Planning & Organising sport event
- Report preparation of sport event
- · Audit Management of sport event

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations, Practical Work

TEXT & REFERENCES:

- Chakraborthy&Samiran. (1998). Sports Management. New Delhi: Sports Publication.
- Charles, A, Bucher & March, L, Krotee. (1993). Management of Physical Education and Sports.
 St. Louis: Mosby Publishing Company.
- Chelladurai, P. (1999). Human Resources Management in Sports and Recreation. Human Kinetics
- John, E, Nixon & Ann, E, Jewett. (1964). Physical Education Curriculum, New York: The Ronald Press Company.
- Williams, J.F. (2003). Principles of Physical Education. Meerut: College Book House.
- · Yadvnider Singh. Sports Management, New Delhi: Lakshay Publication
- Bill, K. (2009). Sport management. Exeter [England]: Learning Matters. ISBN-13-978-1844452637. ISBN-10: 1844452638
- Smith, A., & Stewart, B. (1999). Sports management. St Leonards, N.S.W.: Allen & Unwin.ISBN-13: 978-1864487510. ISBN-10: 1864487518
- Hoye, R. (2012). Sport management. Milton Park, Abingdon, Oxon: Routledge. ISBN-13: 978-1856178198, ISBN-10: 1856178196
- Bowers, M. (2015). Sport management. Champaign: Sagamore Publishing.ISBN-10: 1571677267. ISBN-13: 978-1571677266
- Krotee, M., & Bucher, C. (2007). Management of physical education and sport. Boston: McGraw-Hill.ISBN-10. 0072972920. ISBN-13: 978-0072972924

COUSRE CODE-E020705P

PAPER TITLE- PRACTICAL

SportsPracticalwithspecializationinanyone:Track& Field / Gymnastics / Yoga / Combative Sport /IndigenousSport/TeamGame/RacketGame (Select Any One From The Followigs On The Basis Of Fesability)

(A) Track And Field (B) Gymnastics (C) Yoga (D) Combative Sport: Boxing/Judo/Taekwondo/Wrestling(E)IndigenousSport:Kabaddi/Kho-Kho(F)TeamGame:Basketball/Cricket/Football/Handball/Hockey/Volleyball (G):RacketGame: Badminton/TableTennis/Tennis

ESSENCEOFTHECOURSE

It is designed to provide an opportunity to students to learn the basic techniques of the game/sport and are not only able to display them but also systematically teach them.

COURSECONTENTS:

(General guidelines for development of required course contents in part ocular game/sport are given below)

UNIT —I:Introduction

- Historicaldevelopmentofthegame/sportatnationalandinternationallevels
- NationalBodiescontrollinggame/sportandtheiraffiliatedunits.
- International Bodies controlling game/sport and their affiliated units.
- MajorNationalandInternationalcompetitionsinGame/Sport
- Layout and marking of play filed/ground/courts and measurement of equipments usedinGame/Sport.

UNIT-II:Techniques/Skillsdevelopment

- Classificationoftechniques/skills.
- Technique/skilltraining:Preparatory,Basic.Supplementary exercises.
- Identification & Correction of faults.
- Trainingformasteryin technique/skill
- Recreationalandlead-upactivities.
- Warm-upandcooldownforgame/sports.

UNIT—III:Officiating:

- Mechanicsofofficiating.
- Qualities of good official.
- Dutiesofofficial(pre,duringandpostgame)
- Rules&theirinterpretations.

UNIT—IV:Training(Means&Method)

- Training methods and means for the development of motor abilities (Strength, Speed,Endurance andFlexibility)
- Basic Conceptorpreparationoftraining schedules.
- Tacticaltraining ingame/sport.
- Psychological preparation required during competitioning ame/sport.
- Preparation of shorttermandlong termtraining plansingame/sport.
- Periodizationintraining ofplayersingame/sport.
- General/specificfitnesstestsandperformance/skilltestingame/sport.

SUGGESTEDREADINGS

Latest OfficialRule Books of InternationalFederations of particular game/sport and coachingmanualswillbeutilized.

COUSRE CODE-E020706R

PAPER TITLE- PROJECT(SURVEY WORK)

MA Physical Education Semester-ii

Course code-E020801T

Course Title: SPORTS AND EXERCISE PHYSIOLOGY

THE COURSE OBJECTIVES ARE:

- To assess basic concepts of exercise physiology
- To employ students to apply the knowledge of energy systems during exercise.
- To explain the effect of environment and ergogenic aids on exercise and training.
- Develop a thorough understanding of the relationship between physical activity and health.
- To develop the understanding of the physiological processes.

STUDENT LEARNING OUTCOMES:

- Describe and apply the fundamental and advanced concepts of exercise physiology.
- Define and describe the term exercise physiology
- Recognize the energy system for aerobic and anaerobic components of exercise.
- Summarize the physiological basis of physical fitness, physical training, health and wellness.
- Discover the nutritional aspect of fitness and performance.
- Comprehend the physiological changes & adaptations during exercise in different environmental conditions

UNIT I: Introduction to Sports & Exercise Physiology and Muscular system

Meaning, Definition & Historical Development of Sports & Exercise Physiology

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

UNIT II: Cardio Respiratory System and Exercise

- Blood Supply to the Heart, Cardiac Cycle, Stroke Volume, Cardiac Output, Heart Rate, Factors Affecting Heart Rate, Cardiac Hypertrophy
- Effect of exercises and training on the Cardio-vascular system.
- Mechanics of Breathing. Minute Ventilation Ventilation at Rest and During Exercise
- Diffusion of Gases, Exchange of Gases in the Lungs (external respiration)
- Exchange of Gases in the Tissues (internal respiration), Control of Ventilation
- Ventilation and the Anaerobic Threshold. Second Wind, Oxygen Debt
- Lung Volumes and Capacities
- Effect of exercises and training on the respiratory system

UNIT III: Metabolism and Energy Transfer

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

Long Duration Exercises

UNIT IV: Environment, Sports & Exercise

- Sports/Exercise in Hot and Cold Conditions
- Thermoregulatory Mechanism
- Physiological response, Health Risk, Associated with Exposure to heat and cold.
- Acclimatization: Sports & Exercise Training in High Altitude
- Physiological response and associated health risk.

PRACTICUM: (PHYSIOLOGICAL ASSESSMENT)

- Measurement of resting heart rate, immediately before and after activity and during activity.
- Measurement of Blood Pressure by Sphygmomanometer
- Measurement of Vital Capacity, and Peak Flow Rate.
- Assessment of Respiratory Rate.
- Measurement of Body Fat
- BMI method
- Assessment of Body Composition by Skinfold caliper method
- Assessment of Cardio Respiratory Fitness, through various field methods

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations

TEXT & REFERENCES:

- Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: PoompugarPathipagam.
- Beotra Alka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
- Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
- David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
- Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
- Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
- Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.
- Sandhya Tiwari. (1999). Exercise Physiology. Sports Publishers.
- Shaver, L. (1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.
- Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.
- William, D. Mc Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.
- Kenney, W., Wilmore, J., & Costill, D.(2015) Physiology of sport and exercise. 9781450477673
- McArdle, W., Katch, F., & Katch, V. (2010). Exercise physiology. Baltimore, MD: Lippincott Williams & Wilkins. ISBN 978-1451191554
- Raven, P. (2013). Exercise physiology. Australia: Wadsworth Cengage Learning.

MA Physical Education Semester-ii

Course code- E020802T

Course Title: SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

COURSE OBJECTIVES:

- To provide knowledge and concept of sports training.
- To develop an understanding of the technical and tactical training.
- To provide the role of sport sciences to achieve the excellence

UNIT I: Introduction Sports training

- Definition Aim, Characteristics, Principles of Sports Training.
- · Training Load: Types of Training Load, Factors of Training Load, Load and Adaptation
- · Over Load: Definition, Causes of Over Load, Symptoms of Overload
- · Phases and Means of Recovery

UNIT II: Physical Fitness Components & their Development (Strength, Speed & Endurance)

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

UNIT III: Physical Fitness Components & their Development (Flexibility & Coordinative abilities) and Techniques & Tactics

- Flexibility: Meaning, Definition & Methods to Improve the Flexibility- Stretch and Hold Method, Ballistic Method, Special Type Training: Plyometric Training.
- · Coordinative abilities: Methods to improve Coordinative abilities.
- · Meaning & Definition of Technique
- Meaning & Definition of Strategy & Tactics
- General & Applied Tactics and their implication

UNIT IV: Training Plan & Introduction to Doping

- Training Plan: Meaning & Importance, Micro-Cycle, 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
- Definition of Doping & Education, Side effects of drugs, IOC list of doping classes and methods,
 Prescription only medicines (POMs) & Controlled drugs (CDs).

TEXT & REFERENCES:

- Beotra Alka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.
- Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc. Cart, E. Klafs&Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C. V. Mosphy Company
- Daniel, D. Arnheim (1991) Principles of Athletic Training, St. Luis, Mosby Year Book
- Wuest, D., & Fisette, J. (2014) Foundations of physical education, exercise science, and sport.
 McGraw-Hill Higher Education; ISBN-10: 0073522775ISBN-13. 978-0073522777
- Bompa, T., & Haff, G. (2009). Periodization. Champaign, IL.: Human Kinetics. ISBN-13: 9780736074834
- Haff, G., & Triplett, N. Essentials of strength training and conditioning. Champaign, IL.: Human Kinetics.
- Bompa, T., & Carrera, M. (2005). Periodization training for sports. Champaign, III.: Human Kinetics.
- Zatsiorsky, V., & Kraemer, W. (2006). Science and practice of strength training. Champaign, IL: Human Kinetics.

MA Physical Education Semester-ii

Course code- E020803T

Course Title: YOGIC SCIENCES

COURSE OBJECTIVES:

- 1. To appraise an understanding of the principles of yogic practices
- To Aquitaine with various types of Asanas, Pranayam, Kriyas
- 3. To integrate sports with yoga for performance enhancement

STUDENT LEARNING OUTCOMES:

- 1. Differentiate between various paths of yoga
- 2. Apply and demonstrate various benefits of yoga to be applied in the field of sports
- 3. Relate Yoga with health and wellness.

UNIT I: Introduction to Yoga

Meaning and Definition of Yoga, Astana Yoga: Yama, Niyama, Asana, Pranayama, Prathyahara, Dharana, Dhyana, Samathi. Concept of Yogic Practices: Principles - Breathing - Awareness-Relaxation. Sequence- Counter pose - Time - Place - Blanket - Clothes - Bathing - Emptying the bowels - Stomach - Diet - No straining - Age - Contra-indications - Inverted asana - Sunbathing.

UNIT II:

Loosening exercises: Techniques and benefits. Asanas: Types- Techniques and Benefits. Yogasans and its values. Surya namaskar: Methods and benefits. Pranayama: Types- Methods and benefits. Nadis: Meaning, methods and benefits. Chakras: Major Chakras - Benefits of clearing and balancing Chakras.

UNIT III:

Yoga and Sports: Yoga Supplemental Exercises -Yoga Compensation Exercises- Yoga Regeneration Exercises- Power Yoga. Role of Yoga in Psychological Preparation of athlete: Mental Wellbeing. Anxiety, Depression, Concentration, Self-Actualization. Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous, Respiratory, Excretory Systems. International Day of Yoga, Common Yoga Protocol suggested by AYUSH

Unit IV: PRACTICUM

- 1. Asana (Sitting, Standing, Bending & Twisting)
- 2. Pranayama (5 types)
- 3. Mudras: Meaning, Techniques & Benefits
- 4. Shat Kriyas- Meaning, Techniques and Benefits
- 5. Bandas: Meaning, Techniques & Benefits
- 6. Meditation: Meaning, Techniques& Benefits
- 7. Relaxation (Shavasana & Makrasana)

TEXT & REFERENCES:

- Authors Guide (2015), International Day of Yoga, Common Yoga Protocol, New Delhi: Ministry of AYUSH, Government of India.
- George Feuerstein. (1975). Text Book of Yoga. London: MotilalBansaridass Publishers (P) Ltd.,
- Gore.(1990). Anatomy and Physiology of Yogac Practices. Lonavala: Kanchan Prkashan.
- Helen Purperhart (2004) The Yoga Adventure for Children. Netherlands: AHunter House Book.
- Iyengar, B. K. S. (2000). Light on Yoga. New Delhi: Harper Collins Publishers.
- Kuvalyananda Swami & S.L. Vinekar. (1963). Yogic Therapy Basic Principles and Methods. New Delhi: Govt of India, Central Health Education and Bureau.
- 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 SatyanandaSaraswathi. (1984). Kundalini and Tantra. Bihar: Yoga Publications Trust.
- Swami Kuvalayananda. (1998). Asanas.Lonavla: Kaivalyadhama.
- Swami Satyananda Sarasvati. (1989). Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga, Swami Sivananda. (1971). The Science of Pranayama. Chennai: A Divine Life Society Publication.
- · Tiwari. O.P. (1998). Asanas-Why and How. Lonavla: Kaivalyadhama.
- Thirumalai Kumar. S and Indira .S(2011) Yoga in Your Life, Chennai: The Parkar Publication.
- Khalsa, M., & Bhajan, (2008). Meditations for addictive behavior. Minneapolis, MN: I Was There Press.ISBN-10: 0979919215. ISBN-13: 978-0979919213
- Lysebeth, A. (1979). Pranayama, the yoga of breathing. London: Unwin Paperbacks.ISBN-10: 0041490509. ISBN-13: 978-0041490503
- Paṇḍā, N. (2003). Meditation. New Delhi: D.K. Printworld.ISBN-10: 8124602115 ISBN-13: 978-8124602119
- Ramacharaka, (2009). The science of breath. Waiheke Island: Floating Press.ISBN-10: 1508983704. ISBN-13: 978-1508983705
- Desikachar, T. (1999). The heart of yoga. Rochester, Vt.: Inner Traditions International.ISBN-13: 978-0892817641. ISBN-10: 089281764X
- Iyengar, B. (1979). Light on yoga. New York: Schocken Books.ISBN-10: 0805210318. ISBN-13: 978-0805210316
- Kaminoff, L., & Matthews, A. (2012). Yoga anatomy. Champaign, IL: Human Kinetics. ISBN-10: 1450400248. ISBN-13: 978-1450400244

MA Physical Education Semester-ii

Course code- E020804T

Course Title: SPORTS TECHNOLOGY

COURSE OBJECTIVES:

- Define the relationship between sports and engineering.
- To apprise different materials used in sports.
- To explain concept related to sports dynamics and facility management.
- Describe the importance of ethics within both sports and manufacturing.
- Identify technologies and sustainable solutions to manufacturing apparel.
- Assess and understand the manufacturing techniques within two companies.
- Relate the non-engineering sports world to the knowledge and technologies that engineering has
 developed.

STUDENT LEARNING OUTCOMES:

- · Apply the concept of engineering and technology in sports.
- · Differentiate different materials used in sports.
- Demonstrate and prepare programmes related to sports dynamics and facility management.

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
- Materials of Protection discussion of the materials that are used for sports gear and protection
- Performance of Surface Materials discussion of the different surfaces that sports are played on and why; how can these materials make a difference from sport to sport.
- Shoe Materials discuss the design necessities that go into shoe materials and manufacturing and how that differs from sport to sport
- Balls and Ballistics discuss the difference of the equipment that is used for specific sports and basic aerodynamic principles
- Performance of Surface Materials discussion of the different surfaces that sports are played on and why; how can these materials make a difference from sport to sport.

UNIT II: Sports Dynamics

- Concepts of internal force, axial force, shear force, bending movement, torsion, energymethod to find displacement of structure, strain energy.
- · Biomechanics of daily and common activities Gait, Posture, and Body levers, ergonomics,
- Mechanical principles in movements such as lifting, walking, running, throwing, jumping, pulling, pushing etc., Motion coordinate system, Kinetics of particles Newton's laws of Motion, Work, Energy, Impulse and momentum

UNIT III: 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
- Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system,
- Changing Rooms (M/F), Sound System (echo-free),
- Internal arrangement accords 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

UNIT IV: Practical/Field Visit

- Visit to a stadia for understanding the process of construction & requirements there of
- 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
- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium. Out-door designs, development & maintenance

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations, Practical Work

TEXT & REFERENCE:

- Franz K. F. etc. Editor, Routledge Handbook of Sports Technology and Engineering (Routledge, 2013)
- Steve Hake, Editor, The Engineering of Sport (CRC Press, 1996)
- Franz K. F. et. al., Editor The Impact of Technology on Sports II (CRC Press, 2007)
- Helge N., Sports Aerodynamics (Springer Science & Business Media, 2009)
- Youlin Hong, Editor Routledge Handbook of Ergonomics in Sport and Exercise (Routledge, 2013)
- Jenkins M., Editor Materials in Sports Equipment, Volume I (Elsevier, 2003)
- Colin White, Projectile Dynamics in Sport: Principles and Applications
- Eric C. et al., Editor Sports Facility Operations Management (Routledge, 2010).
- Brasch, N. (2010). Sports and sporting equipment. South Yarra, Vic.: Macmillan Education
- Bruce, L., Hilvert, J., & Hilvert-Bruce, A. (2005). Sports technology. South Yarra, Vic.: Macmillan Library.
- Magdalinski, T. (2009). Sport, technology and the body. London: Routledge.
- Edmundson, C. Sports technology.
- Thompson, G. (2001). Sports technology. Southbank, Vic.: Nelson Thomson Learning.

Course Title-Physical Fitness and Wellness

THE COURSE OBJECTIVE IS:

- To appraise the concept of holistic health through fitness and wellness
- To explain the students about the concept of physical fitness, health related and motor fitness
- To describe the contemporary health issues.
- To apply practical principles of the fitness & wellness

COURSE LEARNING OUTCOMES:

- Understand the concept of holistic health through fitness and wellness
- Explain the concept of physical fitness, health related and motor fitness
- Evaluate primary health status
- Prepare fitness schedules& evaluate fitness

UNIT I: Introduction to Fitness & Wellness

- Meaning and Definition of Fitness, Wellness & Nutrition
- Physical Fitness Concepts, Components, Techniques and Principles of physical fitness,
- Leisure time physical activity, Opportunities in the community to participate leisure activities
- Current trends in fitness and conditioning, Components of total health fitness and the relationship between physical activity and lifelong wellness

UNIT II: Application of Fitness & Wellness

- Nutrition & Wellness
- Body Composition & Weight Management
- Endurance: Cardio respiratory & Muscular
- Flexibility, Fitness & Wellness relationship
- Stress Management & Behavior Modification

UNIT III: Fitness & Wellness Assessment

- · Measurement of Height & Weight
- Measurement of Body Composition
- Measurement of Basic Strength, Endurance and Flexibility
- Assessment of cardio respiratory fitness, Health Related Fitness
- Stress Assessment & its Management Techniques
- Preparation & implementation of Group Exercise Plans
- Preparation & implementation of Personal Training Plans
- Resistance Training for Muscular Strength and Endurance; principles of resistance training,
- Safety techniques (spotting, proper body alignment, lifting techniques, spatial, awareness, and proper breathing techniques) Weight training principles and concepts; basic resistance exercises (including free hand exercise, free weight exercise, weight machines, exercise bands and tubing. medicine balls, fit balls)

Group Exercises Plan, Personal Training, and Fitness & Wellness Activities for various ages & population

UNIT IV: Establishment and Management of Fitness Centre

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

PRACTICUM: Orientation and management of fitness center, various equipments and wet zone.

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Volunteering/Self-Study etc.

ASSESSMENT RUBRIC

Classroom Test/ Project Work/ Assignments/ Presentations .

TEXT & REFERENCE:

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surject Publication Delhi 1989.
- Diffeore 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
- Hoeger, W., & Hoeger, S. Lifetime physical fitness & wellness.ISBN-13: 978-1285733142
 ISBN-10: 1285733142
- Fahey, T., Roth, W., Insel, P., & Insel, C. Fit & well.ISBN-13: 978-0077770396
- ISBN-10: 0077770390
- Corbin, C. (2011). Concepts of physical fitness. New York: McGraw-Hill Higher Education.ISBN-10: 9780073523828ISBN-13: 978-0073523828
- Hoeger, W., & Hoeger, S. Fitness & wellness. (2013) Belmont, CA: Wadsworth, Cengage Learning ISBN-13: 978-1285733159ISBN-10: 1285733150
- Greenberg, J., Dintiman, G., & Myers Oakes, B. (2004). Physical fitness and wellness. Champaign, IL: Human Kinetics. ISBN-13: 978-0736046961. ISBN-10: 0736046968

COUSRE CODE-E020806P

PAPER TITLE- PRACTICAL

SportsPracticalwithspecializationinanyone:Track& Field / Yoga / Swimming / Combative Sport /IndigenousSport/TeamGame/RacketGame. (Select Any One From The Followigs On The Basis Of Fesability)

Track And Field (B) Gymnastics (C) Yoga (D) Combative Sport: Boxing/Judo/Taekwondo/Wrestling(E)IndigenousSport:Kabaddi/Kho-Kho(F)TeamGame:Basketball/Cricket/Football/Handball/Hockey/Volleyball (G):RacketGame:Badminton/TableTennis/Tennis

ESSENCE OF THE COURSE

It is designed to provide an opportunity to students to learn the basic techniques of the game/sport and are not only able to display them but also systematically teach them.

COURSECONTENTS:

(Generalguidelinesfordevelopmentofrequirementcoursescontentsinparticulargame/sportaregivenbelow)

Note: The course contents to be followed for the purpose of developing practical knowledge

regardingmarking, rules & regulation, officiating, technical training, tactical training, psychologic alpreparation & preparation of training schedules)

UNIT—1:Introduction

• Layoutandmarkingofplayfiled/ground/courtsandmeasurementofequipmen tsusedinGame/Sport.

UNIT—II:Techniques/Skillsdevelopment:

- Classificationoftechniques/skills.
- Technique/skilltraining:Preparatory.Basic,Supplementaryexercises.
- IdentificationandCorrectionoffaults.
- Trainingformasteryintechnique/skill.
- Recreational lead-upactivities.
- Warm-upandcool downforgame/sports..

UNIT—III:Officiating:

- Mechanicsofofficiating.
- Qualitiesofgoodofficial.
- Dutiesofofficial(pre,duringandpostgame)
- Rules&theirinterpretations.

UNIT—IV:Training(Means&Method)

- Trainingmethodsandmeansforthedevelopmentofmotorabilities(Strength,Speed,Endurance andFlexibility)
- BasicConceptofpreparation oftrainingschedules.
- Tacticaltraining

ingame/sport.Psychologicalpreparationrequiredduringcompetitioningame/sport.

- Preparation of shorttermandlong termtraining plansing ame/sport.
- Periodizationintraining ofplayersingame/sport.
- General/specificfitnesstestsandperformance/skilltestingame/sport.

SuggestedReadings

Latest Official Rule Books of International Federations of particular game/sport and Coaching manuals willbeutilized.

COUSRE CODE-E020807R

PAPER TITLE- MAJOR PROJECT (SURVEY REPORT)

Guidelines for Research Project:

This paper will be based on field surveys/ work or activities done by the 1st semester students on the relevantissues concerned with Physical education and allied areas. Projectwillbecompletedandsubmitted for evaluation before the end of Semester II. Supervisor will be allotted for eachstudent, who will guide and help the students in the project work. Supervisor will ensure thatassigned 4 hours per week are taken to guide the students in his project work. At the end of 1st semester students will present their work progress and report to their supervisor. Bindcopies of the report will be submitted in the department. A total of 8 Credits (4 credits in 1st semester and 4 creditsin 2nd Semester) shall be allocated to the Research Project Course.

MA Physical Education Semester-iv

Course code-E021001T

Course Title: KINESIOLOGY & SPORTS BIOMECHANICS

COURSE OBJECTIVES:

- To develop the basic understanding of biomechanics and kinesiology and its application in human body movements in performing sports activities.
- 2. To explain the concept of mechanical laws involved in human motion.
- 3. To develop a comprehensive understanding of movement analysis
- To develop the ability to perform mechanical analysis of various fundamental movements and sports skills

STUDENT LEARNING OUTCOMES:

- Explain the basic mechanical concepts and will be able to interpret its relation to human body
 movements
- 2. Organize and specify the overall goal of the course.
- 3. Apply and analyze the factors of mechanical laws involved in human movement.
- 4. Explain the principles of movement analysis
- Analyze the mechanical principles of motor skills and sports related skills along with their proper techniques and corrective measures.

UNIT I: Introduction to Kinesiology and Sports Biomechanics

- Meaning nature, role and scope of applied kinesiology and sports biomechanics
- Meaning of Axis and planes,
- · Dynamics, Kinematics, Kinetics, Statics Centre of Gravity-
- · Line of Gravity plane of the body and axis of motion,
- · Vectors and Scalars
- Meaning of work, power, energy, kinetic energy and potential energy.

UNIT II - Major Muscles - their Location & Action

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

UNIT III - Kinematic and Kinetics of Human movement

- · Meaning and definition of Motion,
- · Types of motion, Linear motion, angular motion, circular motion, uniform motion,
- · principals related to the law of inertia,
- · law of acceleration, and law of counter force,
- · Meaning and definition of force,
- Sources of force-force components,
- force applied at an angle-pressure-friction-buoyancy,
- Spin-centripetal force Centrifugal force.
- Leverage-classes of lever, practical application, Projectiles,
- Equation of projectiles stability factors influencing equilibrium.

UNIT IV: Air & Fluid Mechanics

- Flotation
- · Fluid Resistance: Air & Water
- · Drag & lift
- Spin

LIST OF PRACTICUM

- Analysis of movement:
- · Types of analysis, Kinesiological, Biomechanical, Cinematographic,
- · Methods of analysis Qualitative, Quantitative, Predictive

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test/ Project Work/ Assignments/ Presentations/ Practical Work/Teaching lesson plan

TEXT & REFERENCES:

- McGinnis, P. (2013). Biomechanics of sport and exercise. Champaign, IL: Human Kinetics. ISBN 9780736079662
- Blazevich, A. (2007). Sports biomechanics. London: A. & C. Black. ISBN 9780713678710
- Bartlett, R. (2007). Introduction to sports biomechanics. London: Routledge, Taylor & Francis Group. ISBN 9780415339933
- Hall, S. (2014) Basic biomechanics. Mcgraw Hill Higher Educat. ISBN 9780073522760
- Knudson, D. (2007). Fundamentals of biomechanics. New York, NY: Springer. ISBN 978-0-387-49311-4
- Deshpande S.H. (2002), Manav Kriya Vigyan Kinesiology (Hindi Edition) Amravati: Hanuman Vyayam Prasarak Mandal.
- Hoffman S.J. Introduction to Kinesiology (Human Kinesiology Publication in 2005).
- Steven Roy, & Richard Irvin (1983). Sports Medicine, New Jersey: Prentice Hall.
- Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill.
- Uppal A.K. Lawrence Mamta MP Kinesiology (Friends Publication India (2004)
- Uppal, A.K. (2004), Kinesiology in Physical Education and Fxercise Science, Delhi Friends Publication
- Williams M (1982) Biomechanics of Human Motion, Philadelphia, Saunders Co.

Detailed Syllabus of the MA/MSc IN PHYSsICAL EDUCATION

MA Physical Education Semester-iv

Course Title: GENDER, DISABILITY & INCLUSIVE SPORT EDUCATION

COURSE OBJECTIVES:

- · Define Gender and gender inequality.
- Explain the construction of Gender to gain a solid understanding of the patterns and constraints of gender inequality around the world up to the present day,
- Review what policies and programmes can work to close gender gaps, with a focus on developing countries.
- Elaborate on the constitutional provisions for gender equality in India.
- · Identify gender perspectives in some major policy documents in India

UNIT I: Understanding & Construction of Gender

- · Defining Gender and features of gender inequality
- Gender inequality in Education in India
- Gender based violence as a development and rights challenge
- · Historical roots of gender construction in India -patriarchy and its socio- cultural origins
- · Impact of gender as a social construct.
- · Gender roles and the female stereotype in India
- The Global Gender Equality Agenda

UNIT II: Gender and Schooling

- · Gender issues in access to education & physical education
- Quality of work and equal opportunity
- Gender in the physical education classroom and peer interactions
- · Gender issues in participation in sports

UNIT III: Gender and Constitution of India

- · Constitutional provisions for education of women in India
- · UEE and programmes for education of women in India
- Gender and policy perspective
- · Class and Inequality

UNIT IV: Disability & Inclusive Education

- Definition, concept and importance of inclusive education.
- Historical perspectives on education of children with diverse needs.
- Difference between special education, integrated education and inclusive education.
- Advantages of inclusive sports education for all children.

- Educational approaches and measures for meeting the diverse needs
- Building inclusive learning friendly sports facilities, overcoming barriers for inclusion.
- Creating and sustaining inclusive practices.
- Role of teachers, parents and other community members for supporting inclusion of children with diverse needs for participation in sports.

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/ Viva/ Seminars/ Term Papers/ Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations

TEXT & REFERENCES:

- Chanana, Karuna (ed) Socialisation, Education and Women, Orient Longman, New Delhi, 1988
- Mandell, Nancy (ed), Feminist Issues: Race, Class and Sexuality, Prentice Hall, Ontario, 1995
- Nambissan, Geeta B, Gender and Education: The Social Context of schooling Girl Children in India, 1995.
- Erik Olin Wright, "From Paradigm Battles to Pragmatist Realism: towards an integrated class analysis", New Left Review (forthcoming)
- Daryl Glaser, "Class as a Normative Category: Egalitarian Reasons to Take It Seriously (With a South African Case Study)
- Daryl Glaser, 'Should An Egalitarian Support Black Economic Empowerment?' Politikon, vol. 34, no. 2, 105-123, 2007.
- John Roemer paper: "Should Marxist's care about exploitation" in Analytical Marxism and Philosophy & public affairs 1985
- Michael Marmot, Richard Wilkinson, Social Determinants of Health: The Solid Facts
- Mel Kohn, Class and Conformity, excerpts
- Mel Kohn and Carmi Scholar, Work and Personality, excerpts
- Gomberg, How to make opportunity equal (Blackwell, 2007)
- Ainscow, M., Booth, T (2003): The Index for Inclusion: Developing Learning and Participation in Schools. Bristol: Center for Studies in Inclusive Education.
- Ahuja. A, Jangira, N.K. (2002): Effective Teacher Training: Cooperative Learning Based Approach: National Publishing house 23 Daryaganj, New Delhi 110002.
- Jangira N.K. and Mani, M.N.G. (1990): Integrated Education for Visually Handicapped, Gurgaon, Old Subjimandi, Academic Press.
- Jha. M.(2002) Inclusive Education for All: Schools Without Walls, Heinemann Educational publishers, Multivista Global Ltd, Chennai, 600042, India.
- Sharma, P.L. (1990) Teachers handbook on IED-Helping children with special needs N. C. E R T Publication.
- Sharma P.L (2003) Planning Inclusive Education in Small Schools, R. I E. Mysore

Detailed Syllabus of the MA/MSc IN PHYSsICAL EDUCATION

Course Title: ATHLETIC CARE AND REHABILITATION

COURSE OBJECTIVES:

- To apprise the students about the introduction to Athletic Care & Rehabilitation
- To synthesize a basic concept of sports injuries and rehabilitation.
- To appraise the varied therapeutic aspects of exercise.
- To appraise the understanding of the preventive and curative aspects of sports injuries.
- To explain the understanding of the rehabilitation aspects of sports injuries
- · To describe the knowledge in the field of positive life style.

STUDENT LEARNING OUTCOMES:

- Illustrate and apply the concepts of sports injuries and rehabilitation.
- Interpret the concept of therapeutic aspects of exercise.
- Demonstrate and take care of the preventive and curative aspect of sports injuries.
- · Apply the concept of rehabilitation of sports injuries
- Interpret the concept toward positive lifestyle.

UNIT I: Introduction to Athletic Care & Rehabilitation

- Meaning, definition and importance of Athletic Care & Rehabilitation
- Concept & Categories of the athletic injuries: Traumatic, Overuse.
- · Stages of healing, signs of inflammation.
- Common athletic injuries: Sprain, Strain, Contusion, Dislocation, Fracture
- Types of Skin Wounds: Open & closed wounds, Laceration, Abrasions, Complications of the open wounds of injured athletes.

UNIT II: Prevention & Treatment of Injuries

- Common predisposing factors of athletic injuries.
- · Prevention of athletic injuries.
- Common treatment of soft tissue injuries.
- Immediate treatment: PRICE
- Sub acute Phase: General role of therapeutic modalities.
- Rehabilitation; General Principles, role of therapeutic exercises.
- Role of Massage in the treatment of athletic injuries.

UNIT III: Therapeutic Modalities

- Cryotherapy modalities: General description, physiological and therapeutic effects, Methods of application & contraindications.
- Ice, cold packs, immersion, evaporating sprays

- Hydrotherapy Modalities: General description, physiological and therapeutic effects, Mehtods of applications and contraindication: Contrast Bath, Whirl Pool
- Heating Modalities (Thermotherapy): General description, physiological and therapeutic effect, methods of application & contradictions: Hot Moist Packs, Infra-red Radiation, Wax Bath, Short Wave Diathermy, Microwave Diathermy, Ultra Sound
- Electrotherapy Modalities: General description, physiological and therapeutic effects, Methods of application & contraindications: TNS, Interferential therapy (IFT)
- Advanced Therapeutic Modalities: Introduction, Diapulse, LASER Therapies

UNIT IV: Common Regional Injuries of Head, Neck, Spine, Shoulder, Knee & Ankle

- · Head Injuries: General concept, explanation of concussion
- · Neck Injuries: Mechanism of injuries, general approach.
- Lumbar Spine Injuries: General introduction to ligamentous and muscular injuries, Complications
 of injuries to nervous tissues.
- Low Back pain: Common causes, general care and prevention.
- Shoulder Injuries: Introduction to shoulder dislocation & rotator cuff injuries.
- Knee Injuries: Introduction to injuries of main ligaments of knee and meniscus tear.
- Ankle Injuries: Introduction to ankle sprains, grades of ankle sprain.
- · Overuse Injuries: General approach, brief explanation of shin splints, tennis elbow.

LIST OF PRACTICUM

- Demonstration & practice of Therapeutic Modalities: Infrared, Hot Moist Pack, Wax Bath, Shortwave Diathermy, Ultrasound, Contrast Bath, Whirl Pool.
- Demonstration of Athletics Injuries: Shin Splint, Tennis Elbow, Ankle Sprain, Knee Sprain.
- Demonstration and Practice of Massage

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations, Practical Work TEXT & REFERENCE:

- Fritz, S. (2013)Sports & exercise massage. Elsevier mosbyISBN-13: 978-0323083829
- ISBN-10: 032308382X
- McKone, W. (1997). Osteopathic athletic health care. London: Chapman & Hall.ISBN-13: 978-0412590900ISBN-10: 0412590905
- Magee, D. (2011). Athletic and sport issues in musculoskeletal rehabilitation. St. Louis, Mo.: Elsevier/Saunders.ISBN-13: 978-1416022640. ISBN-10: 1416022643
- Miniaci, A., & Iannotti, J. (2014). Disorders of the shoulder. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health.ISBN-13: 978-1451130584. ISBN-10: 1451130589
- Puddu, G., Giombini, A., & Selvanetti, A. (2001). Rehabilitation of sports injuries. Berlin: Springer.ISBN-13: 978-3540674757. ISBN-10: 3540674756

Detailed Syllabus of the MA/MSc IN PHYSsICAL EDUCATION

MA Physical Education Semester-iv

Course code-E021004T

Course Title: CURRICULUM DESIGNS IN PHYSICAL EDUCAITON

COURSE OBJECTIVES:

- 1. To understand the ever evolving curriculum of physical education
- 2. To develop opportunities to construct & design the curriculum of PE in broader aspects realizing the age group, gender consideration and physiological basis.

STUDENT LEARNING OUTCOMES:

1. Students will be able to design need based curriculum of PE various groups.

UNIT - I: 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 - II: Factors & Resources

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

UNIT - III: Curriculum Practices

- Preparation & selection of content of the curriculum at elementary school level.
- Preparation of the curriculum at the middle and secondary school.
- · Organising for instruction in the middle school.
- Organising the program of physical education at the urban and rural areas.
- · Disciplinary strategies in physical education.

UNIT - IV: Safety Consideration & Evaluation

- · Planning for safety in outdoor settings.
- · Planning for safety in indoor settings.
- · Planning for safety of spectators.
- Legal liability.
- Negligence and its prevention.
- Curriculum evaluation.

Evaluation procedure in curriculum design.

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations, Practical Work

TEXT & REFERENCE:

- Kelly, L., & Melograno, V.(2014) Developing the physical education curriculum. ISBN-13: 978-14786270431SBN-10: 1478627042
- 2. James, J. (2005). Curriculum design in physical education and sports. New Delhi: Friends Publications (India).ISBN-10: 8172161433. ISBN-13: 978-8172161439
- 3. Shinde, B. (2011). Curriculum design in physical education. New Delhi: Sports Publication.ISBN-10: 8178796260. ISBN-13: 978-8178796260
- Mohnsen, B. (2008). Teaching middle school physical education. Champaign, IL: Human Kinetics. ISBN-13: 978-0736068499ISBN-10: 073606849X
- Gupta, R., Sharma, A., & Sharma, S. (2004). Professional preparation and curriculum designs in physical education and sports. New Delhi: Friends Publications. ISBN 13: 9788172160821 (978-81-7216-082-1)ISBN: 8172160828 (81-7216-082-8)

MA Physical Education Semester-iv

Course code-E021005P

Paper code-Practical (Specific Lesson Plan)

Sports Practical with specialization in any one: Track & Field / Gymnastics / Swimming /
Combative Sport /IndigenousSport/TeamGame/RacketGame Sport (Select Any One From
The Followigs On The Basis Of Fesability)

(A)Track and Field (B) Gymnastics (C) Swimming (D) Combative Sport: Boxing/Judo/Taekwondo/Wrestling (E) Indigenous Sport: Kabaddi/ Kho-Kho (F) Team Game: Basketball/Cricket/Football/Handball/Hockey/Volleyball(G):RacketGame: Badminton/TableTennis/ Tennis

ESSENCEOFTHECOURSE

It is designed to provide an opportunity to the students to team the basic techniques of the game/s portand are not only able to display them but also systematically teach them.

COURSECONTENTS:

(Generalguidelinesfordevelopmentofrequiredcoursecontentsinparticulargame/sportaregivenbe low)

Note: The course contents to be followed for the purpose of developing practical knowledge regardingmarking,rules®ulation,officiating,technicaltraining,tacticaltraining, psychologicalpreparation&preparationoftrainingschedules)

UNIT-1:Introduction

 Layoutandmarkingofplayfiled/ground/courtsandmeasurementofequi pmentsusedinGame/Sport.

UNIT—II:Techniques/Skillsdevelopment:

- Classificationoftechniques/skills.
- Technique/skilltraining:Preparatory,Basic,Supplementaryexercises.
- Identification& Correction faults.
- Trainingformasteryin technique/skill.
- Recreationalandlead-upactivities.
- Warm-upandcooldownforgame/sports.

UNITS—III:Officiating:

- Mechanicsofofficiating.
- Qualitiesofgoodofficial.
- Dutiesofofficial(pre,duringandpostgame)
- Rules&theirinterpretations.

UNIT -IV:Training(Means&Method)

Training methods and means for the development of motor abilities (Strength,

MA Physical Education Semester-iv

Course code-E021006R

Paper code - Major Project(Dissertation)

GuidelinesforResearchProject:

In this semester, the allotted project work (selected in the 3rd semester) will be

completedandsubmittedforevaluationbeforetheendof4thSemester.Superviso rwillensure that assigned 4 hours per week are taken to guide the students in his project work. Atthe end of 3rd semester students will present their work progress and report to theirsupervisor. Bind copies of the report will be submitted in the department before theend of 4th semester. In this Semester the project course will be evaluated on the basis of thedissertation/report and its presentation.