

**Tripura University**  
**Department of Physical Education**  
**M.P.Ed CBCS Syllabus**

**Master of Physical Education (M.P.Ed)**  
**2 Years Full Time Programme**

## **Programme Outcomes (POs)**

- PO1. Students will be highly skilled scholars in the field of Physical Education.
- PO2. Students will master the competencies and skills needed to become professional Physical Education and sport resource person.
- PO3. Students will be sensitive about emerging issues in Physical Education & sports.
- PO4. Students will develop reasoning, rational thinking, critical thinking in the problems & issues relating to the field.
- PO5. Students will be creative, self-expressive & continue their pursuit towards professional growth.
- PO6. Students will understand and analyze the importance of sound health and fitness principles as they relate to better health.
- PO7. To learn fundamental movements and its development in relation to growth.
- PO8. Students will demonstrate proficiency through knowledge and acquired skills.
- PO9. Nurture the talents in sports and make them to participate in the Competitive sports.
- PO10. To create fit and healthy society

## **Programme Specific Outcomes (PSOs)**

- PSO1. Recognize the physical and mental benefits of increased activity.
- PSO2. Understand the concept and applied knowledge of Sports Science principles.
- PSO3. Determine factors involved with growth, maturation and physical activity.
- PSO4. Examine the effect of nutrition, rest and other lifestyle factors.
- PSO5. Utilize physical activity as a tool to manage stress.
- PSO6. Participate in a motivating and nurturing environment resulting in a greater sense of well-being and self-esteem.
- PSO7. Participate in active learning to stimulate continued inquiry about physical education, health and fitness.
- PSO8. Understand and utilize various training methods.
- PSO9. Assess individual levels of fitness components.
- PSO10. Preparing the individual for competition as per their talent and specialization.
- PSO11. To plan developmentally appropriate physical education lessons and units of instruction in physical education.
- PSO12. Demonstrate an expert knowledge of the playing strategies and skills of the sports.
- PSO13. To use critical thinking skills during a competitive situation in order to compete to the best of one's ability against opponents.
- PSO14. Embody the traits of good sportsmanship and a sense of team in both competition and practice.

**Department of Physical Education, Tripura University**  
**Course: Master of Physical Education (M.P.Ed)**  
**Semester – I**

<b>Part A :Theoretical Course</b>						
<b>Paper Code</b>	<b>Title of the Papers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
PE-701-C	Research Process in Physical Education & Sports Sciences	4	4	30	70	100
PE-702-C	Physiology of Exercise.	4	4	30	70	100
PE-703-C	Tests, Measurement and Evaluation in Physical Education	4	4	30	70	100
PE-704-E	Yogic Sciences	4	4	30	70	100
PE-705-E	Sports Journalism and Mass Media					
<b>Part–B Practical Course</b>						
PE-706-C	<b>Specialization Activity</b> 1. Track & Field 2. Football 3. Yoga 4. Basketball 5. Volleyball (*Any one)	6	4	30	70	100
PE-707-C	Advanced Activity Kho-Kho/ Kabaddi/ Judo/ Wrestling (*Any one)	6	4	30	70	100
PE-708-C	Yoga	6	4	30	70	100
PE-709-C	Advanced Activity Gymnastic/ Swimming (*Any one)	6	4	30	70	100
<b>Total</b>		40	32	240	560	800

**Department of Physical Education, Tripura University**  
**Course: Master of Physical Education (M.P.Ed)**  
**Semester – II**

<b>Part A: Theoretical Course</b>						
<b>Paper Code</b>	<b>Title of the Papers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
PE-801-C	Applied Statistics in Physical Education & Sports	4	4	30	70	100
PE-802-C	Kinesiology	4	4	30	70	100
PE-803-C	Athletic Care and Rehabilitation	4	4	30	70	100
<b>Elective Course (Anyone)</b>						
PE-804-E	Sports Technology	4	4	30	70	100
PE-805-E	Sports Management and Curriculum Designs in Physical Education					
<b>Part-B Practical Course</b>						
PE806-C	<b>Specialization Activity</b> 1. Track & Field 2. Football 3. Yoga 4. Basketball 5. Volleyball (*Any one)	6	4	30	70	100
PE-807-C	Advance level Games Activity Badminton / Table Tennis / Lawn Tennis	6	4	30	70	100
PE-808-C	Teaching Lessons of theory and practical of Indigenous Activities and Different games & Sports-5 (both Internal & External)	6	4	30	70	100
PE-809-C	Class room Teaching-Theory-5 (both Internal & External) Leadership Training and Adventure Camp	6	4	30	70	100
<b>Total</b>		40	32	240	560	800

**Department of Physical Education, Tripura University**  
**Course: Master of Physical Education (M.P.Ed)**

**Semester – III**

<b>Part A: Theoretical Course</b>						
<b>Paper Code</b>	<b>Title of the Papers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
PE-901-C	Scientific Principles of Sports Training	4	4	30	70	100
PE-902-C	Sports Biomechanics	4	4	30	70	100
PE-903-C	Health Education and Sports Nutrition	4	4	30	70	100
<b>Elective Course (Anyone)</b>						
PE-904-E	Sports Medicine	4	4	30	70	100
PE-905-E	Physical Fitness and Wellness					
PE-906-E	Sports Engineering					
<b>Part–B Practical Course</b>						
PE-907-C	<b>Specialization Activity</b> 1. Track & Field 2. Football 3. Yoga 4. Basketball 5. Volleyball (*Any one)	6	4	30	70	100
PE-908-C	Advance level Games Activity: Football/ Yoga/ Track & Field/ Cricket/ Handball (*Any One)	6	4	30	70	100
PE-909-C	Coaching Lessons of Game Specialization - 05Lessons (4 Internal & 1 External)	6	4	30	70	100
PE-910-C	Coaching Lessons on advance level Games Activity – 5 Lessons (4 Internal & 1 External)	6	4	30	70	100
<b>Total</b>		40	32	240	560	800

**Department of Physical Education, Tripura University**  
**Course: Master of Physical Education (M.P.Ed)**

**Semester – IV**

<b>Part A: Theoretical Course</b>						
<b>Paper Code</b>	<b>Title of the Papers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
PE-1001-C	Information & Communication Technology in Physical Education	4	4	30	70	100
PE-1002-C	Sports Psychology	4	4	30	70	100
PE-1003-C	Adapted Physical Education	4	4	30	70	100
<b>Elective Course (Anyone)</b>						
PE-1004-E	Value and Environmental Education	4	4	30	70	100
PE-1005-E	Education Technology in Physical Education					
PE-1006-E	Dissertation					
<b>Part-B Practical Course</b>						
PE-1007-C	<b>Specialization Activity</b> 1. Track & Field 2. Football 3. Yoga 4. Basketball 5. Volleyball (*Any one)	6	4	30	70	100
PE-1008-C	Advance Level Games Activity- Boxing/ Taekwondo/ Archery (any One)	6	4	30	70	100
PE-1009-C	Officiating Lessons of Games Specialization - 5 Lessons (4 Internal & 1 External)	6	4	30	70	100
PE-1010-C	Officiating Lessons of Advance Game Activity - 5 Lessons (4 Internal & 1 External)	6	4	30	70	100
<b>Total</b>		40	32	240	560	800
		<b>160</b>	<b>128</b>	<b>960</b>	<b>2240</b>	<b>3200</b>

**Department of Physical Education, Tripura University**  
**Course: Master of Physical Education (M.P.Ed)**  
**Semester – I**

<b>Part A :Theoretical Course</b>						
<b>Paper Code</b>	<b>Title of the Papers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
PE-701-C	Research Process in Physical Education & Sports Sciences	4	4	30	70	100
PE-702-C	Physiology of Exercise.	4	4	30	70	100
PE-703-C	Tests, Measurement and Evaluation in Physical Education	4	4	30	70	100
PE-704-E	Yogic Sciences	4	4	30	70	100
PE-705-E	Sports Journalism and Mass Media					
<b>Part-B Practical Course</b>						
PE-706-C	<b>Specialization Activity</b> 1. Track & Field 2. Football 3. Yoga 4. Basketball 5. Volleyball (*Any one)	6	4	30	70	100
PE-707-C	Advanced Activity Kho-Kho/ Kabaddi/ Judo/ Wrestling (*Any one)	6	4	30	70	100
PE-708-C	Yoga	6	4	30	70	100
PE-709-C	Advanced Activity Gymnastic/ Swimming (*Any one)	6	4	30	70	100
<b>Total</b>		40	32	240	560	800

**M.P.Ed (SEMESTER-I)**  
**RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS SCIENCES**  
**(PE-701-C)**

**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. know the concept and meaning of Research
- CO2. understand the fundamentals of Research
- CO3. know the methods of Research
- CO4. know different tools of data collection for Research

**UNIT I – Introduction**

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

**UNIT II – Methods of Research**

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

**UNIT III – Experimental Research**

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

**UNIT IV – Sampling**

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

**UNIT V – Research Proposal and Report**

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

**REFERENCE :**

Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc

Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.

Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, Londonl Routledge Press

Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics;

Kamlesh, M. L. (1999) Reserach 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

**M.P.Ed (SEMESTER-I)**  
**PHYSIOLOGY OF EXERCISE (PE-702-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. understand the physiological effect of Exercise on different system or/and on the body as a whole.
- CO2. understand bioenergetics & role of energy systems in sports activities.
- CO3. understand the role of nutrition & its relevance in energy production.

**UNIT I – Skeletal Muscles and Exercise**

- Macro and Micro Structure of the Skeletal Muscle,
- Types of Muscle fibre and their relation with sports performances
- Sliding Filament theory of Muscular Contraction.
- Chemical Composition, Muscle Tone
- Chemistry of Muscular Contraction
- Effect of exercises and training on the muscular system.

**UNIT II – Cardiovascular System and Exercise**

- Structure of human Heart and Direction of the Blood Flow
- Conduction System of the Heart – Cardio-respiratory blood circulation – Cardiac Cycle – Stroke Volume – Cardiac Output – Heart Rate
- Factors Affecting Heart Rate, Cardiac Hypertrophy
- Effect of exercises and training on the Cardio vascular system.

**UNIT III – Respiratory System and Exercise**

- Respiratory organs of the body
- Mechanics of Breathing, Respiratory Muscles, Minute Ventilation, Ventilation at Rest and During Exercise.
- Diffusion of Gases, Exchange of Gases in the Lungs, Exchange of Gases in the Tissues Control of Ventilation, Ventilation and the Anaerobic Threshold.
- Oxygen Debt and EPOC (Excess Post- Exercise Oxygen Consumption), Lung Volumes and Capacities.
- Effect of exercises and training on the respiratory system.

**UNIT IV – Metabolism and Energy Transfer**

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

**UNIT V – Climatic conditions and sports performance and ergogenic aids**

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

**Laboratory Practical (to be conducted under supervision of Subject Teacher) topics:**

1. Identification of Bone and Joints of the Body and measuring of body segments
2. Measurement of BP by Sphygmomanometer, HR measurement
3. Use of Hemometer
4. Measurement of Blood glucose
5. Use of Body Composition Analyzer
6. Use of Lactate analyzer
7. Use of Gas analyzer

*Note: Laboratory Practicals be designed and arranged internally.*

**REFERENCES:**

- Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugar
- Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
- David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
- Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
- Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
- Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.
- Sandhya Tiwaji. (1999). Exercise Physiology. Sports Publishers.
- William, D. Mc Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

**M.P.Ed (SEMESTER-I)**  
**TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION**  
**(PE-703 C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

1. know terminologies & methods of evaluation in sports & Physical Education.
2. understand the evaluation process.
3. evaluate the human performance.
4. prepare & conduct measurement & evaluation.

**UNIT I – Introduction**

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

**UNIT II – Motor Fitness Tests**

- Meaning and Definition of Motor Fitness.
- Steps for Construction of Motor Fitness Test: 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.
- Steps for Construction of Motor Ability Test: Barrow Motor Ability Test, Newton Motor Ability Test, Kraus Weber Minimum Muscular Fitness Test.

**UNIT III – Physical Fitness Tests**

Steps for Construction of Physical Fitness Test and Administering of Physical Fitness Test:

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

**UNIT IV – Anthropometric and Aerobic-Anaerobic Tests**

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

## UNIT V – Sports Skill efficiency and Psychological Test

### Specific Spots Skill Test:

- Badminton: Miller Wall Volley Test.
  - Basketball: Johnson Basketball Test, Harrison Basketball Ability Test.
  - Cricket: Sutcliff Cricket test.
  - Hockey: Friendel Field Hockey Test, Harban’s Hockey Test,
  - Volleyball: Russel Lange Volleyball Test, Brady Volleyball Test.
  - Football: Mor-Christian General Soccer Ability Skill Test, Johnson Soccer Test, Mc-Donald Volley Soccer Test.
  - Tennis: Dyer Tennis Test.
- 
- Meaning , Factors associated with the items , rating scale and interpretation criteria of testing the following psychological variables:
    - Competition anxiety
    - Team cohesion,
    - Motivation,
    - Aggression,

*Note: Practicals of indoor 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 (2<sup>nd</sup> 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, 2<sup>nd</sup> 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
- Vivian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription, 3<sup>rd</sup> Edition, Dallas TX: The Cooper Institute for Aerobics Research

**M.P.Ed (SEMESTER-I)**  
**YOGIC SCIENCES (PE-704-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. understand the foundation & background of Yoga.
- CO2. know stages Students will & importance of practicing yoga.
- CO3. understand the benefits & effects of Kriyas, Bandhas, Pranayama.
- CO4. understand relation of yoga, health & mental health.
- CO5. know the researches in yoga and its contributions

**Unit I – Introduction**

- Meaning and definition of Yoga. Astanga Yoga: Yama, Niyama, Asana, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi, Concept of Yogic Practices;
- Preparation for Yoga (Medical Check-up, Learn from a Teacher, Follow Traditional Method, Condition Your Mind, Confidence, Patience, Regularity, Time, Place, Seat, Dress, Silence)
- Precautions for Beginners: Keep Stomach Empty, Preparing the Body, Avoid Strain, Avoid Fatigue, How to Practice Asana, Principles of Breathing – Awareness-Relaxation.

**Unit II – Aasanas and Pranayam**

- Suryanamaskar: Methods and benefits. Asanas: Meaning, Definitionas, Aim and Objectives, Characteristics, Classification, Importance.
- Pranayama: Meaning, Asana for Pranayama, Basic Pattern of Pranayama Breathing, Types – Methods and Benefits, Nadis: Meaninf, Methods and Benefits, Chakras: Major Chakras – Benefits of cleaning and balancing Chakras.

**Unit III – Kriyas and Bandhas**

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

**Unit IV – Mudras**

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

**Unit V – Yoga and Sports**

- Importance of Yoga for Sports. Application of Yoga for Specific Types of Sports (Target Sports/Sports using one side of body/ Endurance Sports/Strength and Balance Sports/Team Sports )
- Role of Yoga in Psychological Preparation of athlete: Mental Wellbeing, Anxiety, Depression Concentration, Self Actualization.
- Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous, Respiratory, Excretory System.

*Note: Laboratory Practicals be designed and arranged internally.*

### **REFERENCE:**

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

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

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

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

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

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

Kuvalyananda Swami & S.L. Vinekar, (1963), Yogic Therapy – Basic Principles and Methods. New Delhi: Govt. of India, Central Health Education and Bureau.

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

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

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

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

**M.P.Ed (SEMESTER-I)**  
**SPORTS JOURNALISM AND MASS MEDIA (PE-705-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. know basic concepts of Journalism and Sports Journalism
- CO2. prepare sports bulletin
- CO3. know ways to use media in Journalism
- CO4. review major Competitions and Games with respect to media and journalism
- CO5. prepare reports in Sports and Journalism

**UNIT I Introduction**

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

**UNIT II Sports Bulletin**

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

**UNIT III Mass Media**

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

**UNIT IV Report Writing on Sports**

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

**UNIT –V Journalism**

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

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

**REFERENCE:**

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

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

Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication

Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication,.

Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication

Shiv Khera (2002), You Can Win, New Delhi: Macmillan India Limited.

Varma A.K. (1993) Journalism in India from Earliest Times to the Present Period. Sterling publication Pvt. Ltd.

Venkataiah. N (2009) Value Education,- New Delhi: APH Publishing Corporation

**M.P.Ed-I Semester  
Practical Courses  
Track and Field Specialization Activity (PE-706-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Introduction to Track and Field ( History, Scope & Importance)
2. Events of Track and Field
3. Ancient and Modern Olympic Games
4. Basic measurement of standard track
5. World Athletic Rules Regulations and officiating in semester practicum events.

**Part B – Practicum:**

**1. Sprint Start**

- a. Preparation for start and teaching steps
- b. Starting command and procedure
- c. Leaving the block
- d. Identification of faults and corrective measures

**2. Distance running start**

- a. Running style and running economy, ABC exercises of running

**3. Technique of Running Broad Jump**

- a. Approach
- b. Take-off
- c. Hang/Sale/Hitch kick
- d. Landing

**4. Shot Put**

- a. Safety measures
- b. Introduction to implement and the sector with measurements
- c. Perry O'Bryan/ Rotation Technique
- d. Teaching steps
- e. Execution of faults and corrective measures

**M.P.Ed-I Semester  
Practical Courses  
Football Specialization Activity (PE-706-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**History of Football**

1. Origin and development of Football
2. Formation, Structure and Functions of FIFA & AIFF

**Laws of The Game and Their Interpretations**

3. Interpretation and critical analysis of Laws of The Game and practical implications in match situation
4. Signal by the referee and assistant referee

**Skills**

5. Learning advance skills and identification of faults and proper correction of skills
6. Development of performance and demonstration ability in different skills

**M.P.Ed-I Semester  
Practical Courses  
Yoga Specialization Activity (PE-706-C-3)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part- A**

1. Brief Introduction to Origin, History and Definition of Yoga.
2. Misconceptions of Yoga.
3. Four Schools of Yoga (Jana Yoga, Bhakti Yoga, Karma Yoga and Raj Yoga).
4. Fundamental Principles of Yoga (Pancha Kosha, Pancha Bhuta, Pancha Prana)

**Part- B**

- |                                  |   |
|----------------------------------|---|
| 1. Shavasana                     | 2. Crocodile Variations                 |
| 3. Uttan Padasana                | 4. Ardha Halasana (One leg/Two leg)     |
| 5. Pawanmuktansana (Ardha/Purna) | 6. Setubandhasana                       |
| 7. Naukasana (Supine)            | 8. Sarvangasana                         |
| 9. Halasana                      | 10. Makarsana                           |
| 11. Bhujangasana                 | 12. Ardha Shalabhasana                  |
| 13. Naukasana (Prone)            | 14. Vajrasana                           |
| 15. Bhadrasana                   | 16. Parvatasana                         |
| 17. Janusirasana                 | 18. Paschimuktansana                    |
| 19. Vakrasana                    | 20. Yoga Mudra                          |
| 21. Padmasana                    | 22. Swastikasana                        |
| 23. Tadasana                     | 24. Ardhakati-Chakrasana (Side Bending) |
| 25. Padahastasana                |   |

**References:**

1. "A Text Book on Yoga and Health" – Dr. Sanjib Kumar Bhowmik (Sports Publication, New Delhi)
2. "Asana Pranayama Mudra Bandha"- Swami Satyananda Saraswati (Yoga Publication Trust, Munger, Bihar)
3. "Asanas"- Swami Kunalayananda (Published by Kaivalyadhama, Lonavla).
4. "Asana Why & How"- O.P. Tiwari (Published by Kaivalyadhama, Lonavla)

**M.P.Ed-I Semester  
Practical Courses  
Basketball Specialization Activity (PE-706-C-4)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part- A**

- Introduction to Basketball.
- History of FIBA & BFI.
- Teaching Stages of Skills.
- Layout of Court and Dimensions.
- Basic rules 1-4

**Part- B**

- Basic Fundamental Skill of Basketball (Passing and Receiving, Shooting, Dribbling, Rebounding, Stance & Footwork)
- Different teaching stages of Skills and Techniques (Stance, Execution and Follow throw)
- Identification of faults and corrective measures
- Basic playing ability practices.

**M.P.Ed-I Semester  
Practical Courses  
Kho-Kho Games Activity (PE-707-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Dimensions and layout of Kho-Kho playing arena and technical area
2. Rules and Regulations of play
3. Officiating in Kho-Kho

**Part B – Practicum**

Skills of Kho-Kho-

**1. Chasing Skills:**

- a. Sudden change of direction
- b. Tapping, Grasping Direction, Diving, Pole Diving
- c. Fake Kho, Late Kho, Giving Kho, Trapping
- d. Getting in square and getting off from square

**2. Running Skills:**

- a. Running: Zigzag
- b. Avoiding: Dodging (Front, Back, Round the Post), Position on Kho-Kho Playground

**M.P.Ed-I Semester  
Practical Courses  
Kabaddi Games Activity (PE-708-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Dimensions and layout of Kabaddi playing arena and technical area
2. Rules and Regulation of playing
3. Officiating in Kabaddi

**Part B – Practicum**

**Skills of Kabaddi:**

1. Cant, Entry, Footwork
2. Tackle: Block, Chain Tackle, Waist Hold, Ankle Hold, Thigh Hold
3. Raiding: Hand Touch, Toe Touch, D

**M.P.Ed-I Semester  
Practical Courses  
Judo Games Activity (PE-707-C-3)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Dimensions and layout of Judo playing arena and technical area
2. Rules and Regulation of playing
3. Officiating/ Umpiring in Judo

**Part B – Practicum**

- Basic Fundamental Skill of Judo
- Different teaching stages of Skills and Techniques (Stance, Execution and Follow throw)
- Identification of faults and corrective measures
- Basic playing ability practices.

**M.P.Ed-I Semester  
Practical Courses  
Wrestling Games Activity (PE-707-C-4)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

4. Dimensions and layout of Wrestling playing arena and technical area
5. Rules and Regulation of playing
6. Officiating/ Umpiring in Wrestling

**Part B – Practicum**

- Basic Fundamental Skill of Wrestling
- Different teaching stages of Skills and Techniques (Stance, Execution and Follow throw)
- Identification of faults and corrective measures
- Basic playing ability practices.

**M.P.Ed-I Semester  
Practical Courses  
Yoga Games Activity (PE-708-C)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part – A**

1. Brief Introduction to Origin, History and Definition of Yoga.
2. General guidelines for practice of Yoga
3. Introduction to Asanas
4. Introduction to Pranayama

**Part – B**

1. Surya Namaskar
2. Relaxative Asanas: Savasana, Makarsana
3. Meditative Asanas: Sukhasana, Padmasana, Vajrasana
4. Cultural Asanas: Uttan Padasana, Sarvangasana, Halasana, Matsyasana, Pawanmuktasana, Naukasana (Supine/Prone), Bhujangasana, Shalabhasana, Dhanurasana, Paschimuktanasana, Ardha-Matsyendrasana, Ardha-kati-chakrasana, Chakrasana, Padahastana, Vrikshasana, Tadasana
5. Pranayama: Deep Breathing, Anuloma-Viloma, Suriyabhedan, Ujjai
6. Kriya: Kapalbhata

**M.P.Ed-I Semester  
Practical Courses  
Gymnastics Games Activity (PE-709-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

7. Introduction and History of Gymnastics
8. Rules and Regulation of playing
9. Officiating/ Judging in Gymnastics

**Part B – Practicum:**

- Basic Fundamental Techniques of Gymnastics
- Different teaching stages of Techniques (Stance, Execution and Follow throw)
- Identification of faults and corrective measures
- Basic practices on Artistic Gymnastics.

**M.P.Ed-I Semester  
Practical Courses  
Swimming Games Activity (PE-709-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

10. Dimensions and layout of Swimming arena and technical area
11. Rules and Regulation of playing
12. Officiating/ Judging in Swimming

**Part B – Practicum**

- Basic Fundamental Techniques of Swimming
- Different teaching stages of Techniques (Stance, Execution)
- Identification of faults and corrective measures
- Basic Swimming ability practices.

**Department of Physical Education, Tripura University**  
**Course: Master of Physical Education (M.P.Ed)**  
**Semester – II**

<b>Part A: Theoretical Course</b>						
<b>Paper Code</b>	<b>Title of the Papers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
PE-801-C	Applied Statistics in Physical Education & Sports	4	4	30	70	100
PE-802-C	Kinesiology	4	4	30	70	100
PE-803-C	Athletic Care and Rehabilitation	4	4	30	70	100
<b>Elective Course (Anyone)</b>						
PE-804-E	Sports Technology	4	4	30	70	100
PE-805-E	Sports Management and Curriculum Designs in Physical Education					
<b>Part-B Practical Course</b>						
PE806-C	<b>Specialization Activity</b> 1. Track & Field 2. Football 3. Yoga 4. Basketball 5. Volleyball (*Any one)	6	4	30	70	100
PE-807-C	Games Activity: Badminton / Table Tennis / Lawn Tennis	6	4	30	70	100
PE-808-C	Teaching Lessons of theory and practical of Indigenous Activities and Different games & Sports-5 (both Internal & External)	6	4	30	70	100
PE-809-C	Class room Teaching-Theory-5 (both Internal & External) Leadership Training and Adventure Camp	6	4	30	70	100
<b>Total</b>		<b>40</b>	<b>32</b>	<b>240</b>	<b>560</b>	<b>800</b>

**M.P.Ed (SEMESTER-II)**  
**APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS (PE-801-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. know the basics of computer, data entry in computer and mining of data  
 CO2. know the format of Research Report  
 CO3. understand the concept, need and importance of statistics  
 CO4. understand the use of statistical software and MS Excel for statistical operations  
 CO5. interpret and make inferences based on the statistical Operations

**UNIT I – Introduction**

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

**UNIT II – Data, Graph, Frequency and Measures of Central Tendency:**

- Nature of Data: Nominal, Ordinal, Interval & Ratio.
- Graphical Representation of Data: Line Diagram, Pie Diagram & Bar Diagram.
- Frequency Distribution: Frequency Polygon, Frequency Curve, Histogram & Ogives.  
 Application of measure of Central Tendency & variability and their characteristics (Mean, Median & Mode).

**UNIT III – Measures of Dispersions, Scales and Normal Distribution**

- Meaning, Purpose, Calculation and advances of Range, Quartile Deviation, Mean Deviation, Standard Deviation, Probable Error.
- Meaning, Purpose, Calculation and advantages of scoring scales; Sigma scale, Z Scale, Hull scale
- Normal Distribution: Properties of Normal Curve, Skewness & Kurtosis, Problems based on Normal distribution.

**UNIT IV – Correlation & Regression**

- Concept of Correlation and Regression: Scatter Diagram, Liner Correlation & Rank Correlation.
- Liner regression equation with two variables.
- Partial correlation co-efficient of first and second order
- Multiple correlation coefficients involving three variables.

### **UNIT V – Inferential and Comparative Statistics**

- Tests of significance, Independent “t” test, Dependent “t” test.
- Z-TEST (Large sample test).
- Chi – square test.
- One way Analysis of Variance (ANOVA), Post –hoc test- LSD & Scheffe

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

### **REFERENCE**

Verma, J.P. (2013), Data Analysis in Management with SPSS Software Springer.

Verma, J.P. (2011), Statistical Methods for Sports and Physical Education . Tata McGraw Hill Education, New Delhi

Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc

Clark D.H. (1999) Research Problem in Physical Education 2<sup>nd</sup> edition, Eaglewood Cliffs, Prentice Hall, Inc.

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

Rothstein 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.

**M.P.Ed (SEMESTER-II)**  
**KINESIOLOGY (PE-802-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. understand the science of kinesiology in relation to human performance.  
 CO2. analyze various fundamental movements and understanding the relevance of analysis.  
 CO3. understand the body structure and apply the knowledge in analysis of movements.

**Note: Ten questions will be set from all the units. Five questions are to be attempted selecting one from each unit and each question will carry 14 marks.**

**Unit-I: Introduction:**

- Nature and concept of kinesiology
- Historical development of kinesiology
- Relationship with other sciences
- Application of knowledge of kinesiology in physical education and sports science.

**Unit II – Anatomical and Physiological Fundamentals of human motion:**

- Types of joints their structure and functions.
- Various types of movements around the joints.
- Muscles: Origin, Insertion and function related to human movement.
- Study of muscular movements of various joints: (Shoulder Joints, Elbow Joints, Hip Joint, Knee Joint).

**Unit-III: Kinesiological aspects of Postures and gait**

- Concept of posture and gait.
- Characteristics of good erect standing posture.
- Common postural deformities of spine, leg and foot – nature, problems and corrections
- Analysis of human Gait.
- 

**Unit IV- Underlying principles of basic motor skills**

- Characteristics of Skillful motions and classification of skills
- Basic Principles of Receiving impetus from external objects.
- Basic Principles of Giving impetus to external objects.
- Principles of Giving impetus to and Receiving impetus from one's own body.

**Unit V- Kinesiological Analysis and Application of Kinesiological Principles in Fundamental movements and daily living skills**

- Outline of kinesiological analysis
- Kinesiological principles involved in daily living skills
- Kinesiological analysis of running, jumping and throwing

**REFERENCES**

- Gowitzke, B.A and Milner, M (1988). Scientific Basis of Human Movement (3rd.ed.) Baltimore: Williams and Wilkins.
- Groves, R and Camaine, D. (1983). Concepts in Kinesiology. (2nd.ed) Philadelphia:Saunders College Publishing.
- Hay, J. & Reid, J (1982). The Anatomical and Mechanical Basis of Human Motion.Englewood Cliffs: Prentice – Hall

**M.P.Ed (SEMESTER-II)**  
**ATHLETIC CARE AND REHABILITATION (PE-803-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. understand the body posture in defining different deformities of postures.  
 CO2. give a thorough understanding about the restoration and rehabilitation from injuries.  
 CO3. understand the active and passive movements and massage and their utilities in rehabilitation process.  
 CO4. identify different forms of injuries and their process of recovering which is related with the sports.

**Unit-I: Corrective Physical Education**

- Definition, objectives and scope of corrective Physical Education.
- Application of corrective programme at different levels of schools.
- Equipments and facilities required for schools,
- Evaluation and measurement 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
- Deviation in posture: Kyphosis, Lordosis, Flat Back, Scoliosis, Round shoulders, Knock Knee, Bow Leg, Flat Foot.
- Causes for deviations and treatment including exercises.

**Unit-III: Rehabilitation Exercises**

- Therapeutic Exercises (Introduction, Definition, Aims, Goals, Essential Steps to be considered for an Approach to Therapeutic Exercise, Scope of Therapeutic Exercises).
- Active Movements (Classification, Technique, Effects and Uses of Free Exercise, Assisted Exercise, Assisted – Resisted Exercise, Resisted Exercise, Progressive Resistance Exercise, Types of Resisted Exercise: Isometric, Isotonic, Isokinetic).
- Passive Movements (Classification, Technique, Effects and Uses of Relaxed Passive Movements, Forced Passive Movements, Manipulation Under Anaesthesia).

**Unit-IV: Massage**

- Introduction, Brief history of Massage, Meaning, Definitions of Massage.
- Types and Benefits of Massage.
- Uses of Massage
- Principles of Massage
- Effect of Massage on human body.

**Unit-V: Sports Injuries Care, Treatment and Support**

- Introduction, Types of Sports injuries
- Common Sports Injuries, Treatment of sports Injuries, Immediate care of Injuries
- Prevention of Sports Injuries, Basic steps to reduce the Risk of sports injuries.
- Principles and techniques of Strapping and Bandages
- Therapeutic Modalities (Hydrotherapy, Whirlpool, Contrast bath, Cryo therapy, Diathermy, Ultrasound)

**References:**

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

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

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.

A F Morris (1984) Sports Medicine, Wm.C Brown, Iowa

F.G.O'Connor , Sports Medicine, McGraw-Hill ,USA

**M.P.Ed (SEMESTER-II)**  
**SPORTS TECHNOLOGY (PE-804-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. know about different technological concepts and types
- CO2. use technology to its fullest potential.
- CO3. use technology for better communication in instructional system.
- CO4. know and use different audio-visual media in physical education
- CO5. know about new technological advancements in educational setting and their uses.

**Unit I – Sports Technology**

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

**Unit II – Science of Sports Materials**

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

**Unit III – Surfaces of Playfields**

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

**Unit IV – Modern equipment**

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

**Unit V – Training Gadgets**

- Basketball: Ball Feeder, Mechanism and Advantages.
- Cricket: Bowling Machine, Mechanism and Advantages,
- Tennis: Serving Machine, Mechanism and Advantages,
- Volleyball: Serving Machine Mechanism and Advantages.
- Lighting Facilities: Method of erecting Flood Light and measuring luminous.

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

**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.**

**REFERENCE:**

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

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

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

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

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

**M.P.Ed (SEMESTER-II)**  
**SPORTS MANAGEMENT AND CURRICULUM DESIGN IN PHYSICAL EDUCATION (PE-805-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. get acquainted with duties & responsibilities of managers.  
 CO2. understand the importance of management in Physical Education  
 CO3. know the basic concept & principles of management in Physical Education.

**UNIT I – Introduction to Sports Management**

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

**UNIT II – Program Management**

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

**UNIT III – Equipments and Public Relation**

- 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,
- Principles of integration,
- Theories of curriculum development, Conservative (Preservation of Culture),
- Relevance, flexibility, quality, contextually and plurality.
- Approaches to Curriculum; Subject centred, Learner centred and Community centred, Curriculum Framework.

## UNIT V – Curriculum Sources & Evaluation

- 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.

### Reference:

Aggarwal, J.C (1990). Curriculum Reform in India – World overviews, Doaba World Education Series – 3 Delhi: Doaba House, Book seller and Publisher.

Arora, G.L. (1984): Reflections on Curriculum, New Delhi: NCERT.

Bonnie, L. (1991). The Management of Sports. St. Louis: Mosby Publishing Company, Park House.

Bucher A. Charles, (1993) Management of Physical Education and Sports (10<sup>th</sup> ed.,) St. Louis: Mobsy Publishing Company.

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

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

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

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

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

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

Williams, J.F. (2003). Principles of Physical Education. Meerut: College Book House. Yadvnider Singh. Sports Management, New Delhi: Lakshay Publication.

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

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

**M.P.Ed-II Semester  
Practical Courses  
Track and Field Specialization Activity (PE-806-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. History of running events
2. Philosophy of Officiating and Coaching
3. Technique and Tactics of Middle distance and long distance running events
4. Use of modern technology in Track and Field events
5. Layout of standard track
6. World Athletics Rules Regulations and officiating in semester practicum events

**Part B – Practicum:**

**1. Discus Throw**

- a. Safety measures
- b. Introduction to implement and the sector with measurements
- c. Rotation Technique
- d. Teaching Steps
- e. Release/Execution of throw
- f. Identification of faults and corrective measures

**2. Triple Jump**

- a. Approach
- b. Phases of Take-off
- c. Hop/Step/Jump – Distribution of energy and arm action
- d. Landing

**3. Relay Races**

- a. Visual Exchange Technique
- b. Non Visual Exchange
- c. Composition and arranging of relay team
- d. Measurement of relay zones and stagger
- e. Finishing technique of a sprint
- f. Use of FAT and hand timing system at finishing line

**M.P.Ed-II Semester  
Practical Courses  
Football Specialization Activity (PE-806-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Techniques**

1. Development of football techniques and identification of faults and proper correction of techniques
2. Methodical phase of different techniques and its mechanical analysis

**Tactics & Strategies**

3. General and applied tactics and strategies and their implications
4. Individual : Attack & Defence
5. Group : Attack & Defence
6. Principles of tactical play in attack and defence

**M.P.Ed-II Semester  
Practical Courses  
Yoga Specialization Activity (PE-806-C-3)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part- A**

1. Introduction to Patanjali Yoga Sutras
2. Introduction to Hatha Yoga
3. Asanas, Pranayama, Bandhas, Mudras, Pratyahara, Dhayana and Samadhi as described in Hatha Yoga Pradipika
4. Asanas, Pranayama, Bandhas, Mudras, Pratyahara, Dhayana and Samadhi as described in Gheranda Samhita.

**Part- B**

- |                                     |                             |
|-------------------------------------|-----------------------------|
| 1.Suryanamaskar                     | 2.Nasarga Dristi            |
| 3.Matsyasana                        | 4.Jalandhara Bandha         |
| 5.Shalavasana                       | 6. Uddiyana Bandha          |
| 7. Dhanurasana                      | 8.Mula Bandhasana           |
| 9. Gomukhasana                      | 10.Moolbandha               |
| 11.Mandukasana                      | 12.Vrikshasana              |
| 13. Preparatory Breathing Practices | 14.Anuloma-Viloma Pranayam  |
| 15.Trikonasana                      | 16.Ujjayi Pranayama         |
| 17.Ardha-Matsyendrasana             | 18.Suryabhedan Pranayama    |
| 19.Akarnadhanurasana                | 20.Kapalbhati               |
| 21.Tolangulasana                    | 22.Jala Neti                |
| 23.Bhrumadhya                       | 24.Dristi Rubber/Sutra Neti |
| 25.Vaman Dhauti                     |                             |

**References:**

1. Patanjali Yoga Sutras – P.V. Karambelkar (Published by Kaivalyadhama, Lonavla).
2. Four Chapters on Freedom- Swami Satyananda Saraswati (Yoga Publication Trust, Munger, Bihar)
3. “A Text Book on Yoga and Health” – Dr. Sanjib Kumar Bhowmik (Sports Publication, New Delhi)
4. “Hathapradipika of Svatmarama”- Swami Digambarji & Raghunath Shastri Kokaje (Published by Kaivalyadhama, Lonavla)
5. “Gheranda Samhita” - Swami Digambarji & M.L. Gharote (Published by Kaivalyadhama, Lonavla)
6. “Asana Pranayama Mudra Bandha”- Swami Satyananda Saraswati (Yoga Publication Trust, Munger, Bihar)
7. Asanas – Swami Kuvalayaananda (Published by Kaivalyadhama, Lonavla).
8. “Pranayama” – Swami Kuvalayaananda (Published by Kaivalyadhama, Lonavla).
9. “Asana Why & How”- O.P. Tiwari (Published by Kaivalyadhama, Lonavla)

**M.P.Ed-II Semester  
Practical Courses  
Basketball Specialization Activity (PE-806-C-4)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Fundamental rules 5 – 10
2. Interpretation of above mentioned rules and regulations.
3. Common Injuries: Prevention & care.
4. Evaluation technique.

**Part B – Practicum:**

1. Fundamental skills of Basketball  
(Passing & Receiving, Shooting, Rebounding, Dribbling, Footwork & Stance)
2. Different teaching stages of different skills/techniques  
(Stance, execution & follow through)
3. Identification of faults and corrective measures
4. Basic playing ability practices.

**M.P.Ed-II Semester  
Practical Courses  
Badminton Games Activity (PE-807-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

4. Dimensions and layout of Badminton playing arena and technical area
5. Rules and Regulations of Game
6. Officiating/ Umpiring of Badminton game

**Part B – Practicum**

1. Fundamental skills /Techniques of Badminton game
2. Different teaching stages of different skills/techniques  
(Stance, execution & follow through)
3. Identification of faults and corrective measures
4. Basic playing ability practices.

**M.P.Ed-II Semester  
Practical Courses  
Table Tennis Games Activity (PE-807-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

7. Dimensions and layout of Table Tennis playing arena and technical area
8. Rules and Regulations of Game
9. Officiating/ Umpiring of Table Tennis game

**Part B – Practicum**

5. Fundamental skills /Techniques of Table Tennis game
6. Different teaching stages of different skills/techniques  
(Stance, execution & follow through)
7. Identification of faults and corrective measures
8. Basic playing ability practices.

**M.P.Ed-II Semester  
Practical Courses  
Lawn Tennis Games Activity (PE-807-C-3)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

10. Dimensions and layout of Lawn Tennis playing arena and technical area
11. Rules and Regulations of Game
12. Officiating/ Umpiring of Lawn Tennis game

**Part B – Practicum**

9. Fundamental skills /Techniques of Lawn Tennis game
10. Different teaching stages of different skills/techniques  
(Stance, execution & follow through)
11. Identification of faults and corrective measures
12. Basic playing ability practices.

**Department of Physical Education, Tripura University**  
**Course: Master of Physical Education (M.P.Ed)**

**Semester – III**

<b>Part A: Theoretical Course</b>						
<b>Paper Code</b>	<b>Title of the Papers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
PE-901-C	Scientific Principles of Sports Training	4	4	30	70	100
PE-902-C	Sports Biomechanics	4	4	30	70	100
PE-903-C	Health Education and Sports Nutrition	4	4	30	70	100
<b>Elective Course (Anyone)</b>						
PE-904-E	Sports Medicine	4	4	30	70	100
PE-905-E	Physical Fitness and Wellness					
PE-906-E	Sports Engineering					
<b>Part-B Practical Course</b>						
PE-907-C	<b>Specialization Activity</b> 1. Track & Field 2. Football 3. Yoga 4. Basketball 5. Volleyball (*Any one)	6	4	30	70	100
PE-908-C	Advance level Activity: Football/ Yoga/ Track & Field/ Cricket/ Handball (*Any One)	6	4	30	70	100
PE-909-C	Teaching & Coaching Lessons of Specialization Activity- 05Lessons (4 Internal & 1 External)	6	4	30	70	100
PE-910-C	Teaching & Coaching Lessons on advance level Games Activity -5 Lessons (4 Internal & 1 External)	6	4	30	70	100
<b>Total</b>		<b>40</b>	<b>32</b>	<b>240</b>	<b>560</b>	<b>800</b>

**M.P.Ed (SEMESTER-III)**  
**Scientific Principles of Sports Training (PE-901-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

CO1. understand the scientific sports training process & principles.

CO2. develop attitudes and skills in designing sports training programs.

CO3. be a good sports trainer.

**Unit-I: Introduction**

- Sports training: Definition- Aim, Characteristics and 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 and Methods of Development (Strength, Speed and Endurance)**

- Strength: Meaning, Characteristics and 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 and Fartlek Training.

**Unit-III: Components of Physical Fitness and Co-ordination abilities**

- Flexibility: Meaning, Characteristics and Methods to Improve the Flexibility- Stretch and Hold Method, Ballistic Method, Special Type Training: Plyometric Training. Training for Coordinative abilities: Meaning, Characteristics and 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: Concept of Technique, Tactics and Strategy in Sports**

- Definition and Meaning of Technique, Tactics and Strategy. Purpose of Technique, Tactics and Strategy in Sports. Motor and Skill Training in Sports, Various Phases of Skill Training.
- Tactical Training in different Sports.
- Strategic plan for Competition.

**Unit-V: Training Plan**

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

**References:**

J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc.

E. Klafs & Daniel, D Arnheim (1999) Modern Principles of Athletic Training St. Louis

Daniel, D. Arnheim (1991) Principles of Athletic Training, 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 Sport, 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 2<sup>nd</sup> Edition, London: Jones and Bartlett Publications

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

**M.P.Ed (SEMESTER-III)**  
**Sports Biomechanics (PE-902-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

CO1. understand the science of Biomechanics in relation to human performance.

CO2. analyze various fundamental movements and understanding the relevance of analysis.

CO3. understand the body structure and apply the knowledge in analysis of movements.

### **Unit-I Introduction**

- Basic nature and scope of the subject area- Biomechanics of sports;
- Historical development;
- Relationship with other sciences;
- Importance in teaching, coaching and research in physical education and sports science.

### **Unit-II Linear and angular Kinematics**

- Motion – concept and characteristics; Geometrical classification of motion; Kinematic parameters for linear and angular motion; Relationship among kinematic parameters; Relation between linear and angular kinematic parameters and its implications in sports;
- Projectile motion – concept; Important parameters of projectile motion; Types of projectiles, Performance parameters of different projectiles in games and sports, Principles of projectile motion for practical application in sports.

### **Unit-III Linear kinetics**

- Newton's laws of motion - First law, Second law and Third law; Significance and application of each law in games and sports;
- Kinetic factors – Inertia, Force, Momentum, Impulse.
- Work, Power, Energy: Work – concept, measurement and relevance in sports;
- Power – concept, measurement and relevance in sports;
- Energy – Concept, measurement and relevance in sports.

### **Unit IV Machine function of human body, Equilibrium and stability**

Machine function of human body:

- Classifications of levers; Major functions of levers as machine, Skeletal levers – characteristics and functions;
- Pulley – Characteristics and function; Pulley function in human body;
- Wheel & Axle – Characteristics and function, Functions of Wheel & Axle in human body.

Equilibrium and Stability:

- Equilibrium – concept and conditions, Types of equilibrium –Static (Stable, Unstable and Neutral), and Dynamic;

- Stability – Concept, Factors influencing degree of stability –Physiological, Psychological and Mechanical – Area of base, Position of Cg, Weight, Frictional force etc.

### **Unit V Biomechanical analysis**

- Concept of Biomechanical analysis and its importance in teaching and coaching;
- General outline of Biomechanical analysis
- Types of biomechanical analysis- Quantitative and qualitative
- Biomechanical analysis of fundamental movements – walking, jumping, throwing and catching,

### **REFERENCE:**

- Deshpande S.H.(2002). Manav Kriya Vigyan – Kinesiology (Hindi Edition) Amravati :Hanuman Vyayam Prasarak Mandal.
- Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication In.2005.
- Steven Roy, & Richard Irvin. (1983). Sports Medicine. New 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 (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friends publications.
- Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.
- G. Dyson – Mechanics of Athletics.
- J. W. Bunn – Scientific Principle of Coaching.
- Jerry N. Barham – Mechanical Kinesiology.
- James G Hay – Biomechanics of Sports Techniques.
- Grieve, Miller, Mirchelson, Paul& Smith – Techniques for the Analysis of Human Movement.
- Hochumth – Biomechanics of Athletics Movements.

**M.P.Ed (SEMESTER-III)**  
**HEALTH EDUCATION AND SPORTS NUTRITION (PE-903-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. understand the concept & importance and determinants of health.  
 CO2. understand the changing concept of health education, need of a comprehensive health education program and approaches to health education.  
 CO3. understand reasons, effects & preventive ways of substance use & abuse.  
 CO4. understand typical stages of diseases, and help them understand certain communicable and non-communicable diseases.

**Unit I: Health Education**

- Concept, Dimensions, Spectrum and Determinants of Health
- Definition of Health, Health Education, Health Instruction, Health Supervision, Aim, objective and Principles of Health Education
- Health Service and guidance instruction in personal hygiene

**Unit II: Health Problems in India**

- Meaning of Communicable and Non Communicable Diseases
- Communicable Diseases (Sexually Transmitted Diseases, Tuberculosis, Malaria, Dengue and DHF, Viral Hepatitis)
- Non Communicable Diseases (Cardiovascular Diseases, Obesity, Diabetes, Stress, Accidents and Injuries)
- Malnutrition, Adulteration in food, Environmental sanitation, Population Explosion
- 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: Introduction to Sports Nutrition**

- Meaning and Definition of Sports Nutrition, Role of nutrition in sports, Basic Nutrition guidelines
- Role of carbohydrates, Fat and protein during exercise.
- Hydration and Sports Performance, Supplements in Sports Nutrition,
- Special Circumstances (Vegetarian Athlete, High Altitude, Hot Environments, Cold Environments),
- Ergogenic Aids and Performance
- Role of a Sports Dietician

**Unit IV: Nutrition and Weight Management**

- Concept of BMI (Body mass index), 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.

## Unit V: Health Statistics and Demography

- Biostatistics: (Presentation of Statistics, variability and error, analysis and interpretation of data, sampling, sampling variations, tests of significance)
- Demography and Vital Statistics: (Demography, vital statistics, Interpretation, conclusion, recommendations)

### REFERENCE:

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.

**M.P.Ed (SEMESTER-III)**  
**SPORTS MEDICINE (PE-904-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1.know the historical background & development of sports medicine  
 CO2.know common injuries and healing process  
 CO3.get acquainted with injury management of common injuries  
 CO4. know various modalities & its uses

**UNIT I – Introduction**

- Meaning, definition and importance of Sports Medicine, Definition and Principles of therapeutic exercises. Coordination exercise, Balance training exercise, Strengthening exercise, Mobilization exercise, Gait training, Gym ball exercise Injuries: acute, sub-acute, chronic. Advantages and Disadvantages of PRICE, PRINCE therapy, Aquatic therapy.

**UNIT II – Basic Rehabilitation**

- Basic Rehabilitation: Strapping/Tapping: Definition, Principles Precautions Contraindications. Proprioceptive neuromuscular facilitation: Definition hold, relax, repeated contractions. Show reversal technique exercises. Isotonic, Isokinetic, isometric stretching. Definition. Types of stretching, Advantages, dangers of stretching, Manual muscle grading.

**UNIT III – Spine Injuries and Exercise**

- Head, Neck and Spine injuries: Causes, Presentational of Spinal anomalies, Flexion, Compression, Hyperextension, Rotation injuries. Spinal range of motion. Free hand exercises, stretching and strengthening exercise for head neck, spine. Supporting and aiding techniques and equipment for Head, Neck and Spine injuries.

**UNIT IV – 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. Thorax, Rib fracture. Breathing exercises, Relaxation techniques, Free hand exercise, Stretching and strengthening exercise for shoulder, Elbow, Wrist and Hand. Supporting and aiding techniques and equipment for Upper Limb and Thorax Injuries.

**UNIT V – Lower Extremity Injuries and Exercise**

- Lower Limb and Abdomen Injuries: Hip: Adductor strain, Dislocation, Strapping. Knee: Sprain, Strain, Strain, Strapping. Ankle: Sprain, Strain, Strapping. Abdomen: Abdominal wall, Contusion, Abdominal muscle strain. Free exercises – Stretching and strengthening exercise for Hip, knee, ankle and Foot. Supporting and aiding techniques and equipment for Lower limb and Abdomen injures.

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

**REFERENCES:**

Christopher M. Norris. (1993). Sports Injuries Diagnosis and Management for Physiotherapists. East Kilbride: Thomson Litho Ltd.

James, A. Gould & George J. Davies. (1985). Physical Physical Therapy. Toronto: C.V. Mosby Company.

Morris B. Million (1984) Sports Injuries and Athletic Problem. New Delhi: Surjeet Publication.

Pande. (1998). Sports Medicine. New delhi: Khel Shitya Kendra

The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine, Australia: Tittel Blackwell Scientific publications.

**M.P.Ed (SEMESTER-III)**  
**Physical Fitness and Wellness (PE-905- E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to

- CO1. know various training methods in sports.
- CO2. improve overall & specific fitness.
- CO3. create database of exercises & training protocols.
- CO4. assess fitness using different techniques.

**Unit I – Introduction**

- Meaning and Definition of Physical fitness, components of physical Fitness, Principles of Physical Fitness
- Fitness and Conditioning (Aerobic Training, Strength Training & Drug and Athletic Training).
- Definition and Dimensions of wellness, Health as Positive Wellness, maintaining Emotional Wellness, Global Wellness (various Health Issues worldwide and their management).
- Physiological, Health and psychological benefits of Physical activity.
- Making Physical activity a priority.

**Unit II – Application of fitness & Wellness**

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

**Unit III – Fitness & Wellness Assessment**

- Measurement of Height, weight and body composition.
- Assessment of cardio respiratory fitness and health related fitness.
- Stress assessment and its management technique.
- Preparation & implementation of personal & group exercise plans
- Group exercises plan, Personal Training, Fitness & Wellness Activities for various ages and population

#### Unit IV – Assessment & Methods of Training

- 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 exercise(including free hand exercise, free weight exercise, weight machines, exercise bands and tubing, medicine balls, fit balls)
- Flexibility Training, Relaxation Techniques and Core Training. Safety techniques (stretching protocol; breathing and relaxation techniques).

#### Unit V – Establishment & Management of Fitness Centre

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

#### REFERENCE:

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.
- Dificore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35 Bedford row, London 1998.
- Dr. A. K. Uppal, Physical Fitness, Friends Publication (India), 1992. W. K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
- Elizabeth & Ken day, Sports Fitness for Women, B. T. Batsford Ltd, London, 1986.
- Emily R. Foster, Karyn Hartiger & Katherine A. Smith, Fitness Fun, Human Kinetics Publishers 2002.
- Lawrence, Debbie, Exercise to music. A & C black publisher Ltd. 37, Sohe Square, London 1999.
- Robert Malt. 90 day fitness plan, D. K. Publishing, Inc. 95, Madison Avenue, New York 2001.

**M.P.Ed (SEMESTER-III)**  
**SPORTS ENGINEERING (PE-906-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

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

**Unit- III Sports Dynamics**

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

**Unit- IV Building and Maintenance:**

- Sports Infrastructure- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Outdoor 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, refurbish, demolish.
- **Maintenance policy,** preventive maintenance, corrective maintenance, record and register for maintenance.

**Unit – V Facility life cycle costing**

- Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation

**Reference**

Franz K. F. et. al., Editor, Routledge Handbook of Sports Technology and Engineering (Routledge, 2013)

Steve Hake, Editor, The Engineering of Sport (CRC Press, 1996)

Franz K. F. et. al., Editor The Impact of Technology on Sports II (CRC Press, 2007)

Helge N., Sports Aerodynamics (Springer Science & Business Media, 2009)

Youlin Hong, Editor Routledge Handbook of Ergonomics in Sport and Exercise (Routledge,2013)

Colin White, Projectile Dynamics in Sport: Principles and Applications

Eric C. et al., Editor Sports Facility Operations Management (Routledge, 2010)

**M.P.Ed (SEMESTER-III)**  
**Practical Courses**  
**Track and Field Specialization Activity (PE-907-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. History of Jumping events
2. Motor skills and their development
3. Plyometric and jumping exercises
4. Organization of Athletic events and event presentation
5. Layout of field event sectors
6. World Athletic Rules Regulations and officiating in semester events.

**Part B – Practicum:**

**1. Javelin Throw**

- a. Introduction to the implement, measurement and safety measures
- b. Teaching steps of the throwing Javelin
- c. Grip. Hold, Carry, Approach
- d. Technique of Javelin Throw
- e. Release/Throw and Recovery

**2. Race Walking**

- a. Technique of Race Walking
- b. Identification of faults and their corrections

**3. Hammer Throw**

- a. Introduction to the implement, measurement and safety measures
- b. Teaching steps of the Throwing Hammer
- c. Grip, Hold, Carry, Rotation
- d. Throwing/Execution
- e. Recovery

**4. Stipple Chase**

- a. Introduction to Stipple Chase
- b. Events of the race
- c. Technique of Stipple Chase Hurdling

**M.P.Ed (SEMESTER-III)**  
**Practical Courses**  
**Football Specialization Activity (PE-907-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**System of play**

1. Development of various formations
2. Requirements and functioning of various formations

**Psychological Aspects**

3. Psychological preparation and its components
4. Pep talk
5. Presence of spectator factor
6. Injury prevention and rehabilitation

**M.P.Ed (SEMESTER-III)**  
**Practical Courses**  
**Yoga Specialization Activity (PE-907-C-3)**

Total Marks :100  
 Theory Marks :70  
 Internal Marks:30

**Part- A**

1. Asanas (Meaning, Definitions, aim and objectives, chareteristics, classification)
2. Differences between Asanas and Physical Exercises.
3. Pranayama
4. Prayer

**Part- B**

1. Viparitararani
2. Karnapidasana
3. Majari Asana
4. Uttan Mondukasana
5. Simhasana
6. Utkatasana
7. Virasana
8. Samasana
9. Siddhasana
10. ushtrasana
11. Mayurasana
12. Padangustasana
13. Chakrasana
14. Bakasana
15. Kurmasana
16. Hanumanasana
17. Virabhadrasana
18. Shitali Pranayama
19. Sitkari Pranayama
20. Bhramari Pranayama
21. Bhatrika Pranayama
22. Nauli
23. Jalkapalbhati
24. Danda Dhauti
25. Vastra Dhauti

**References:**

1. "A Text Book on Yoga and Health" – Dr. Sanjib Kumar Bhowmik (Sports Publication, New Delhi)
2. "Asanas" – Swami Kuvalayaananda (Published by Kaivalyadhama, Lonavla).

3. “Pranayama” – Swami Kuvalayaananda (Published by Kaivalyadhama, Lonavla).
4. “Asanas” – Swami Kuvalayaananda (Published by Kaivalyadhama, Lonavla).
5. “Asana Why & How”- O.P. Tiwari (Published by Kaivalyadhama, Lonavla)
6. “Anatomy and Physiology of Yogic Practices” by Dr. M.M. Gore,

**M.P.Ed (SEMESTER-III)**  
**Practical Courses**  
**Basketball Specialization Activity (PE-907-C-4)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Rules & Regulations of 10 – rest
2. Aims & objectives of tactics.
3. Offensive tactics & defensive tactics (individual 7 group)
4. Methods of tactical training (break up drills)
5. Coaching philosophy.
6. Coaching ethics.

**Part B – Practicum:**

1. Performing tactical skills
  - a. Individual tactics
  - b. Group tactics
  - c. Team tactics
2. Identification of faults & corrective measures.
3. Performing game with different tactics & information.

**M.P.Ed (SEMESTER-III)**  
**Practical Courses**  
**Football - Advance Activity (PE-908-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

13. Dimensions and layout of Football playing area
14. Rules and Regulations of Game
15. Officiating of Football game

**Part B – Practicum**

13. Fundamental skills /Techniques of Football game
14. Different teaching stages of different skills/techniques  
(Stance, execution & follow through)
15. Identification of faults and corrective measures
16. Basic playing ability practices.
17. 5 Nos. Of Teaching and Coaching Lesson plan.

**M.P.Ed (SEMESTER-III)**  
**Practical Courses**  
**Track and Field-Advance Activity (PE-908-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Proper TRACK Marking (200 Mtr. & 400 Mtr.)
2. Rules and Regulations of Sports
3. Officiating / Judging of the sports

**Part B – Practicum**

1. Running, Throwing and Jumping events
2. Different teaching stages of different skills/techniques  
(Stance, execution & follow through)
3. Identification of faults and corrective measures
4. 5 Nos. Of Teaching and Coaching Lesson plan.

**M.P.Ed (SEMESTER-III)**  
**Practical Courses**  
**Handball - Advance Activity (PE-908-C-3)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Dimensions and layout of Handball playing area
2. Rules and Regulations of Game
3. Officiating of the game

**Part B – Practicum**

1. Fundamental skills /Techniques of Handball game
2. Different teaching stages of different skills/techniques  
(Stance, execution & follow through)
3. Identification of faults and corrective measures
4. Basic playing ability practices.
5. 5 Nos. Of Teaching and Coaching Lesson plan.

**Semester – IV**

<b>Part A: Theoretical Course</b>						
<b>Paper Code</b>	<b>Title of the Papers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Part A: Core Course</b>						
PE-1001-C	Information & Communication Technology in Physical Education	4	4	30	70	100
PE-1002-C	Sports Psychology	4	4	30	70	100
PE-1003-C	Adapted Physical Education	4	4	30	70	100
<b>Elective Course (Anyone)</b>						
PE-1004-E	Value and Environmental Education	4	4	30	70	100
PE-1005-E	Education Technology in Physical Education					
PE-1006-E	Dissertation					
<b>Part-B: Practical Course</b>						
PE-1007-C	<b>Specialization Activity</b> 1. Track & Field 2. Football 3. Yoga 4. Basketball 5. Volleyball (*Any one)	6	4	30	70	100
PE-1008-C	Advance Games Activity- Boxing/ Taekwondo/ Archery (any One)	6	4	30	70	100
PE-1009-C	Coaching & Officiating Lessons of Specialization Activity -5 Lessons (4 Internal & 1 External)	6	4	30	70	100
PE-1010-C	Teaching & Coaching Lessons of Advance Game Activity - 5 Lessons (4 Internal & 1 External)	6	4	30	70	100
<b>Total</b>		<b>40</b>	<b>32</b>	<b>240</b>	<b>560</b>	<b>800</b>
		<b>160</b>	<b>128</b>	<b>960</b>	<b>2240</b>	<b>3200</b>

**M.P.Ed (SEMESTER-IV)**  
**INFORMATION & COMMUNICATION TECHNOLOGY IN PHYSICAL EDUCATION (PE-1001-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to

- CO1. Understand the various applications of computer skills.  
 CO2. Give the different barriers in communication and will help students to sort out the gap Communication.  
 CO3. Understand the utilities of various MS Office applications in related to Physical Education  
 CO4. Understand E-based communication, virtual classes in teaching and learning process

**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 Physical 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 Portals/ Online learning, Visual (Virtual) Classroom, E-Library
- Introduction to MOOC'S (Massive open online course) and OER'S (Open Educational Resources)

**REFERENCES:**

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

Brain under IDG Book. India (p) Ltd Teach Yourself Office 2000, Fourth Edition-2001  
Douglas E. Comer, The Internet Book, Purdue University, West Lafayette in 2005  
Heidi Steel Low price Edition, Microsoft Office Word 2003- 2004  
ITL Education Solution Ltd. Introduction to information Technology, Research and  
Development Wing-2006  
Pradeep K. Sinha & Priti; Sinha, Foundations computing BPB Publications -2006.

**M.P.Ed (SEMESTER-IV)**  
**SPORTS PSYCHOLOGY (PE-1002-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to

- CO1. get acquainted with the meaning, nature and scope of sports Psychology.
- CO2. know & prepare psychological profiles of sportsmen.
- CO3. understand the role of sports psychology in the performance.
- CO4. know various psychological problems and its coping techniques for better sports performance.
- CO5. know the role of leaders, counselors, and social psyche in the performance enhancement.
- CO6. know about Psychological Tests and be able to conduct these tests on subjects.

**UNIT I - Introduction**

- Definition, Need, Scope and Importance of Sports Psychology.
- Relationship of sports psychology with other sports sciences & Role of sports psychologists.
- Sensation, perception, memory, information processing, decision making, thought process.
- Attention, types of attention and role of attention in sports.
- Meaning and definition of Motor Learning, stages of motor learning and plateau effect.

**UNIT II - Motivation**

- Meaning and Definition, Types of Motivation,
- Theories of motivation, Measurement of motivation, Techniques of developing motivation, Motivation performance relationship.
- Meaning and Definition, Nature, Causes and types of anxiety, Method of Measuring Anxiety, Management of anxiety.
- Meaning, Definition, Causes, types and management of Stress and Sports Performance.
- Meaning, Definition and types of aggression, management and measurement of aggression and Sports Performance

**UNIT III – Goal Setting , PST & Psychometry**

- Meaning and Definition of Goal Setting, Types of goals and their effectiveness, principles of goal setting.
- Importance of psychological skill training programme.
- Cognitive behavioral techniques (Imagery, VMBR, Mental Practice/ Rehearsal)
- Relaxation techniques (PMR, Bio-feedback, Hypnosis, etc), Activation Techniques.
- Measurement and assessment limitations in sports and exercise psychology.

## UNIT IV – Leadership and Group Dynamics

- Leadership: Meaning, Definition, types of Leadership and Sports Performance,
- Coach- athlete relationship issues.
- Definition and Meaning of Group Cohesion, Group dynamics: Group Size, Groups Composition, Group Cohesion, Group Interaction,
- Role of team cohesion in team sports.

## UNIT V – Personality and Socio- psychological Issues in Modern sports

- Definition & meaning and characteristics of personality,
- Measuring Personality Traits, Effects of Personality on Sports Performance.
- Gender inequalities in Sports and role conflict
- Types of spectator and their effect on sports performance.
- Sports burnout and exercise addiction.

### Practicals:

- Use of Psychological test apparatus-Depth Perception, Mirror Drawing apparatus, reaction time apparatus
- Steadiness test, use of Finger dexterity board
- Use of various inventory and questionnaires (Motivation/Anxiety/Self esteem/ Emotion etc.)

### REFERENCES:

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

**M.P.Ed (SEMESTER-IV)**  
**Adapted Physical Education (PE-1003-C)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

CO1. understand the meaning, need and importance of Adapted Physical Education

CO2.know the purpose, aims and objectives of Adapted Physical Education

CO3. understand the Test, Measurement and Evaluation in Adapted Physical Education

CO4.develop the Individual Education Program of Adapted Physical Education

CO5.understand the Motor & HRPF development of individual with disability

CO6. understand the role of games and sports in Adapted Physical Education

**UNIT-I : Introduction to Adapted Physical Education**

- Meaning, Definition, Scope, Aim and Objective of Adapted Physical Education
- The guiding principles of Adapted Physical Education
- The policies for Adapted Physical Education
- Functions of Adapted Physical Education teachers.

**UNIT-II : The Adapted Programme in Action**

- The Adapted programme for elementary school, high/secondary schools, college and universities
- Sensitization programme
- Latest facilities provided

**Unit – III: Humanism and Adapted Physical Education :**

- Humanistic theory, Self-actualization theory, Expectancy theory, Attribution theory, Social Learning theory
- Problems confronting disabled person
- Adjustment problems of the disabled and Mainstreaming

**UNIT-IV: Classification of Disability**

**(A) Physical Disabilities**

- Causes
- Characteristics
- Functional Limitations

**(B) Mental Retardation**

- Causes
- Characteristics
- Functional Limitations

**(C) Visual Impairment**

- Causes

- Characteristics
- Functional Limitations

**(D) Hearing Impairment**

- Causes
- Characteristics
- Functional Limitations

**(E) Behavioral Disorders**

- Adjustment problems
- Personality disorder

**UNIT-V: Recreation and Rehabilitation program for disabled**

- Paralympics Games
- Special Olympics
- Recreation for the Handicapped
- Special Physical Education programme for blind, deaf and mentally retarded children
- Neurological disabilities- Poliomyelitis and Cerebral Palsy.

**Rehabilitation**

- Aims and Objectives of rehabilitation council of India
- Meaning of functional and occupational rehabilitation
- Importance of Adapted programme in rehabilitation
- Functional rehabilitations
- Psychological rehabilitation- Adjust mental, Environmental and Personality Development.

**References:**

- Walter C. Crowe, David Auxter and Jean Pyfer, Principles and Methods of Adapted Physical Education and Recreation London : C.V. Mosby Comp.
- Holies F. Fair and John M. Dunn, Special Physical Education Philadelphia: Saunders College Publishing.
- C. Sherrill, Adapted Physical Activity, Recreation and Sport, Bown Pub.
- J.P. Winnick, Adapted Physical Education and Sport Champaign; Human Kinetics.
- H.H.Clark, Development and Adapted Physical Education, Englewood, Prentice Hall 1964.
- D.H.Clark,A.S.Daniels, Adapted Physical Education, New York Harpers & Brothers 1972.
- V.V.Hunt, Recreation for the Handicapped, Prentice Hall inc. 1974

**M.P.Ed (SEMESTER-IV)**  
**VALUE AND ENVIRONMENTAL EDUCATION (PE-1004-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. inculcate values in to their daily routines
- CO2. judge values and commitment to values.
- CO3. know about environmental studies
- CO4. make sustainable use of natural resources and use products which are environmentally recommended
- CO5. know the status of Sanitation, urban & rural health and will keep themselves and their surroundings clean and healthy
- CO6. know about govt. policies for management of Pollution.

**UNIT I – Introduction to Value Education**

- Values: Meaning, Definition, Concepts of Values.
- Value Education: Need, Importance and Objectives.
- Moral Values: Need and Theories of Values.
- Classification of Values: Basic Values of Religion, Classification of Values.

**UNIT II – Value Systems**

- Meaning and Definition, Personal and Communal Values,
- Consistency, Internally consistent, internally inconsistent,
- Judging Value System,
- Commitment, Commitment to values.

**Unit- III – Environmental Education**

- Definition, Scope, Need and Importance of environmental studies.,
- Concept of environmental education,
- Historical background of environmental education,
- Celebration of various days in relation with environment,
- Plastic recycling & prohibition of plastic bag / cover,
- Role of school in environmental conservation and sustainable development, Pollution free ecosystem.

**Unit - IV Rural Sanitation and Urban Health**

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

**Unit - V Natural Resources and related environmental issues**

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

**REFERENCE:**

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

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

Rao, M.N. & Datta, A.K. Waste Water Treatment (Oxford & IBH Publication Co. Pvt. Ltd.) 1987

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

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

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

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

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

**M.P.Ed (SEMESTER-IV)**  
**EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION AND SPORTS (PE-1005-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. know about different technological concepts and types  
 CO2. use technology to its fullest potential.  
 CO3. use technology for better communication in instructional system.  
 CO4. know and use different audio-visual media in physical education  
 CO5. know about new technological advancements in educational setting and their uses.

**Unit I – Nature and Scope**

- Educational technology-concept, Nature and Scope. Forms of educational technology: teaching technology, instructional technology, and behavior 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.

**REFERENCE:**

Amita Bhardwaj, New Media of Educational Planning”.Sarup of Sons, New Delhi-2003  
Bhatia and Bhatia. The Principles and Methods of Teaching (New Delhi : Doaba House), 1959.

Communication and Education, D. N. Dasgupta, Pointer Publishers

Education and Communication for development, O. P. Dahama, O. P. Bhatnagar, Oxford Page 68 of 71 IBH Publishing company, New Delhi

Essentials of Educational Technology, Madan Lal, Anmol Publications

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

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

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

**M.P.Ed (SEMESTER-IV)**  
**DISSERTATION (PE-1006-E)**  
**Total Marks- 100 (70 Theory + 30 Internal)**

**Course outcomes:** At the end of the course student will be able to-

- CO1. develop Research attitude among the students
- CO2. formulate the Research problem and carry out the Research
- CO3. develop and administer the tools for data collection
- CO4. organize and present the research work

- 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).
- A candidate selecting dissertation must submit his/her dissertation not less than one week before the beginning of the IV Semester Examination.
- The candidate has to face the Viva-Voce conducted by DRC.

**M.P.Ed (SEMESTER-IV)**  
**Practical Courses**  
**Track and Field Specialization Activity (PE-1007-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. History of Throwing events
2. Mechanics of Throwing, Jumping and Running
3. World Athletics Rules Regulations and Officiating in semester practicum events.

**Part B – Practicum:**

**1. High Jump**

- a. Measurement and technical rules
- b. Approach
- c. Scissor Technique
- d. Straddle Technique
- e. Fosbury Flop Technique
- f. Landing and Leaving the mat

**2. Hurdles**

- a. Introduction to the Hurdles with all measurements
- b. Hurdling Drills
- c. Running over the hurdles

**3. Combined Events**

- a. Decathlon
- b. Heptathlon

**4. Pole Vault**

- a. Introduction to Pole Vault
- b. Measurements and Technical rules of Pole Vault
- c. Technique of Pole Vault

**M.P.Ed (SEMESTER-IV)**  
**Practical Courses**  
**Football Specialization Activity (PE-1007-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Competition**

1. Preparation including build up competition, with specific task
2. Team preparation – Physical & Mental

**Special features of training in women**

3. Anatomical & Physiological differences
4. Psychological differences

**Video reading analysis of Training Sessions and Match Performances**

Gathering video information –

5. To understand the own mistake
6. To motivate perform better
7. Development of Grass Root Football

**M.P.Ed (SEMESTER-IV)**  
**Practical Courses**  
**Yoga Specialization Activity (PE-1007-C-3)**

Total Marks :100  
 External Marks :70  
 Internal Marks :30

**Part – A**

1. Yogic Diet (Concept of Ahara in Indian perspective, concept of Mitahara)
2. Awareness of Yoga Therapy (Applications, Indications, Contra-indications and limitations)
3. Yogic Management of Health Problems (Back ace, Obesity, Diabetes, Stress)

**Part – B**

1. Shirshasana
2. Natarajsana
3. Garudasana
4. Padma Bakasana
5. Poorna Matsyendrasana
6. Eka Pada Sirasana
7. Kapotasana
8. Kukkutasana
9. Uttan Kurmasana
10. Vatayansana
11. Bhumasana
12. Padma Mayurasana
13. Poorna Bhujangasana
14. Poorna Dhanurasana
15. Vrischikasana
16. Yogic Practices for the Eyes (Palming, Sideways Viewing, Front and Sideways Viewing, Up and down viewing, Rotational Viewing and Preliminary Nasikagra Dristi)
17. Trataka
18. Yoga Nidra
19. Meditation (Demonstrated ability to perform meditation; knowledge of the environment for meditation)

**References:**

1. “A Text Book on Yoga and Health” – Dr. Sanjib Kumar Bhowmik (Sports Publication, New Delhi).
2. “Asana Pranayama Mudra Bandha”- Swami Satyananda Saraswati (Yoga Publication Trust, Munger, Bihar).
3. “Asanas” – Swami Kuvalayaananda (Published by Kaivalyadhama, Lonavla).
4. “Pranayama” – Swami Kuvalayaananda (Published by Kaivalyadhama, Lonavla)

**M.P.Ed (SEMESTER-IV)**  
**Practical Courses**  
**Basketball Specialization Activity (PE-1007-C-4)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

1. Official duties & powers (floor & table officials)
2. Official signs & signals
3. Mechanism of officiating skill & technique
4. 2 – men and 3 – men official techniques

**Part B – Practicum:**

1. Perform 2 – men official techniques in game situation.
2. Perform 3 – men official techniques in game situation.
3. Perform table official duties in game situation.

**M.P.Ed (SEMESTER-IV)**  
**Practical Courses**  
**Boxing Advance Activity (PE-1008-C-1)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

- Dimensions and layout of Boxing playing area
- Rules and Regulations of Game
- Officiating of the game

**Part B – Practicum**

- Fundamental skills /Techniques of Boxing game
- Different teaching stages of different skills/techniques
- (Stance, execution)
- Identification of faults and corrective measures
- Basic playing ability practices.
- 5 Nos. Of Teaching and Coaching Lesson plan.

**M.P.Ed (SEMESTER-IV)**  
**Practical Courses**  
**Taekwondo - Advance Activity (PE-1008-C-2)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

- Dimensions and layout of Taekwondo playing area
- Rules and Regulations of Game
- Officiating of the game

**Part B – Practicum**

- Fundamental skills /Techniques of Taekwondo game
- Different teaching stages of different skills/techniques
- (Stance, execution)
- Identification of faults and corrective measures
- Basic playing ability practices.
- 5 Nos. Of Teaching and Coaching Lesson plan.

**M.P.Ed (SEMESTER-IV)**  
**Practical Courses**  
**Archery - Advance Activity (PE-1008-C-3)**

Total Marks :100  
External Marks :70  
Internal Marks :30

**Part A – Theory:**

- Dimensions and layout of Archery playing area
- Rules and Regulations of Game
- Officiating of the game

**Part B – Practicum**

- Fundamental skills /Techniques of Archery game
- Different teaching stages of different skills/techniques
- (Stance, execution)
- Identification of faults and corrective measures
- Basic playing ability practices.
- 5 Nos. Of Teaching and Coaching Lesson plan.