

**Choice Based Credit System (CBCS)  
Scheme and Course Structure for**

**M.P.Ed. Semester-III**

<b>Course Code</b>	<b>Course Title</b>	<b>Type of Course</b>	<b>Credit Value</b>	<b>MSE</b>	<b>ESE</b>	<b>Total</b>
MPED-C-301	Research Methodology and Applied Statistics –I	Core	4	50	50	100
MPED-C-302	Sports Medicine	Core	4	50	50	100
MPED-C-303	Exercise Physiology–I	Core	4	50	50	100
MPED-C-304	Games–III	Core (Practical)	3	50	50	100
MPED-C-305	Track & Field-III	Core (Practical)	3	50	50	100
MPED-C-306	Adventure Sports (Winter)	Core (Practical)	2	50 (Internal)	--	50
Open Generic Elective	Choice Based Credit System (CBCS)	Core	4	50	50	100
<b>Total</b>			<b>24</b>	<b>350</b>	<b>300</b>	<b>650</b>

## M.P.Ed. Semester-III

Max Marks -100

Credit= 4

### MPED-C-301: RESEARCH METHODOLOGY AND APPLIED STATISTICS-I

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#### Objectives:

1. To impart knowledge about the research methodology.
2. To provide the information about research problems in physical educations
3. To understand about the literature reviews and tools in research.
4. To give the basic concept of statistics in physical education.

**Outcome:** Student learns the experimental design, research methods and its terminology.

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#### Unit-1 Introduction to Research

- Meaning and definition of research
- Nature of research and classification of Research
- Qualities of good research and good researcher
- Need and scope of research in physical education and sports.

#### Unit-II Research Problem and Hypothesis

- Research Problem: Identifying, locating and selecting a research problem
- Criteria of selecting a research problem.
- Hypothesis, Importance and types of hypothesis.
- Characteristics of a good hypothesis.

#### Unit-III Literature Review, Data Sources and Tools

- Literature Review: importance of literature review, methods of writing literature review.
- Limitation and Delimitation in research
- Data Source: Primary and Secondary Sources
- Tools in research

#### Unit-IV Descriptive Statistics

- Mean, Median and Mode, Mean Deviation, Standard Deviation.
- Meaning of probability- Normal Curve, Properties of normal curve. Skewness and Kurtosis.
- Graphical Representation in Statistics; Line diagram, Bar diagram, Histogram, Frequency Polygon.

#### SUGGESTED READINGS:

- Best J.W., Research in Education (4th ed.). New Delhi; Prentice Hall inc.,1982.
- Clarke, H. David Research Processes in Physical Education Recreation & Health. Prentice Hall inc., 1985
- Garrett, H.E. (1981). Statistics in psychology and education. New York: VakilsFeffer and Simon Ltd.
- Kamlesh, M.L. Methodology of Research in Physical Education and Sport (4th ed.). New Delhi; Sports Publication, 2014.
- Oyster, C. K., Hanten, W. P., & Llorens, L. A. (1987). Introduction to research: A guide for the health science professional. Landon: J.B. Lippincott Company.

- Scott, M. Gladys (ed.) Research Methods in health, physical education and recreation. Washington, D.C., American Association for Health, Physical Education and Recreation, 1968.
- Sharma, Y. P. Physical Education and Research Methodology. New Delhi; Reliance Publishing House, 1997
- Thomas Jerry R., Nelson Jack K. & Silverman, Stephen J. Research Methods in Physical Activity. Human Kinetics: Champaign, 2005.
- Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). Research method in physical activity. U.S.A: Champaign, IL: Human Kinetics Books.
- Verma, J. P. (2000). A text book on sports statistics. Gwalior: Venus Publications.

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**MPED-C-302: SPORTS MEDICINE**

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**Objectives:**

1. The concept of sports medicine and its significance in sports performance.
2. The development of the profession of sports medicine and its regulatory bodies.
3. Injuries occurring in the upper & lower extremities and their rehabilitation.
4. The techniques and benefits of massage and Physiotherapy.

**Outcomes:**

1. The student would be able to understand the Prevention, Treatment and Rehabilitation of Athletic Injuries.
  2. The student would be able to understand the type of exercise requirement for different groups of people as per their needs.
  3. Students would be able to devise effective exercise program as per the need of the individual.
  4. Utilize know how of relevant aspects of musculo-skeletal medicine in prevention.
  5. Design, implement, evaluate and modify programs specifically related to prevention and management of sports injuries.
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**Unit-1 Sports Medicine and Sports Injuries**

- Sports Medicine: Meaning, Definition and Objectives.
- Scope and Importance of Sports Medicine.
- Sports Injuries: Classification, Causes and Prevention.
- First Aid - Objectives & Principles of First Aid.

**UNIT-II Doping in Sports**

- Meaning, Classification of Doping, its side Effects.
- Ergogenic aids & Doping in Sports, Doping: methods and effects on health; Role and importance of WADA & NADA in Doping.
- Prohibited Substance, Method and Athletes Responsibilities.
- Side Effect of Prohibited Substances.

**UNIT-III Physiotherapy and Massage**

- Definition – Guiding principles of physiotherapy & Importance of physiotherapy;
- Therapeutic modalities: Cryotherapy, hydrotherapy and thermotherapy (I/R lamps, wax bath);
- Electrotherapy: TENS, short wave diathermy, microwave diathermy, ultra sound;
- Massage: Different manipulations used in massage.

**Unit-IV Rehabilitation**

- Rehabilitation: Meaning & Contribution of Physical Education Teachers and Coaches.
- Principles of Rehabilitation;
- Therapeutic Exercise: Definition and Scope – Principles of Therapeutic Exercise – Classification;
- Effects and uses of Therapeutic exercise – passive Movements (Relaxed, Forced and passive - stretching) – active movements (concentric, Eccentric and static)

## SUGGESTED READINGS:

- Armatrong & Tucker: Injuries in Sports (London: Staples Pres).
- Christine, M. D., (1999). Physiology of sports and exercise. USA: Human Kinetics.
- Conley, M. (2000). Bioenergetics of exercise training. In T.R. Baechle, & R.W. Earle, (Eds.), Essentials of Strength Training and Conditioning (pp. 73-90). Champaign, IL: Human Kinetics.
- David, R. M. (2005). Drugs in sports, (4th Ed). Routledge Taylor and Francis Group.
- Hunter, M. D. (1979). A dictionary for physical educators. In H. M. Borrow & R. McGee, (Eds.), A Practical approach to measurement in Physical Education (pp. 573-74). Philadelphia: Lea &Febiger.
- Jeyaprakash, C. S., Sports Medicine, J.P. Brothers Pub., New Delhi, 2003.
- Khanna, G.L., (1990). Exercise physiology & sports medicine. Delhi:Lucky Enterprises.
- Mathew, D.K. & Fox, E.L, (1971). Physiological basis of physical education and athletics. Philadelphia:W.B. Saunders Co.
- Pandey, P.K., (1987). Outline of sports medicine, New Delhi: J.P. Brothers Pub.
- Ray, Steven & Tryin Richard: Sports Medicine (New Jersey Englo cliffs, Prentice Hall, 1983).
- Williams, J. G. P. (1962). Sports medicine. London: Edward Arnold Ltd.

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**MPED-C-303: EXERCISE PHYSIOLOGY-I**

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**Objective:** This course focuses on how the body (and its systems) responds to the differing types of intensities of exercise. For students who wish to pursue further studies in exercise physiology, a thorough mastery of this fundamental information is extremely important and provides the foundation for more advanced study in exercise bioenergetics, biochemistry and physiology.

**Outcomes:**

1. Knowledge of the acute and chronic physiological changes that occur in the body in response to exercise stress.
  2. Knowledge in the performance, understanding and interpretation of basic physiological assessment such as Gerontology, muscular fitness and cardiovascular analyses.
  3. An appreciation of research in exercise physiology.
  4. Student learns the basic concept of different systems, physiological concepts in physical education.
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**Unit-I Human Body Systems and Exercise Impact**

- Cardio respiratory system and Impact of exercise
- Neuromuscular system and Impact of exercise
- Endocrine system and Impact of exercise

**Unit-II Fundamentals and Neuromuscular Function**

- Skeletal Muscle: Function of Skeletal Muscle; Sliding Filament Theory of muscular contraction;
- The basic energy systems: ATP-PCr System, Glycolytic System & Oxidative system;
- Nerve control of exercising muscle: Neuron structure, neuromuscular junction;
- Neural transmission & motor response.

**Unit-III Exercise in Different Environmental Conditions**

- Thermoregulatory control of heat exchange and effectors that alter body temperature;
- Exercise in hot condition: Physiological response and health risks;
- Exercise in cold condition: Physiological response and health risks;
- High altitude exercise: Physiological response and health risks.

**Unit-IV Gerontology and Exercise**

- Aging:
  - Body size and Composition difference;
  - Physiological response to acute exercise;
  - Special Issues (Environmental stress, Longevity).
- Sex Differences:
  - Body size and Composition difference;
  - Physiological response to acute exercise;
  - Special issues (menstrual dysfunction, eating disorders);

**SUGGESTED READINGS:**

- Jack H. Wilmore, David L. Costill, (1994). Physiology of Sport and Exercise. Human Kinetics.
- Katch F.L. and McArdle W.D (2010) Nutrition, Weight Control and Exercise. Philadelphia, Lea &Febiger.
- Allen W. Jakson, James R. Morrow (1999) Physical Activity for Health &fitness. Human Kinetics.
- Tiwari, Sandhya, (1999).Exercise Physiology.Sports Publications
- David N. Camaione (1993). Fitness Management.WCB Brown & Benchmark.

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**Objectives:**

1. To impart knowledge about the basics rules of hockey and handball
2. To provide the information about the different level of surfaces in hockey and handball.
3. To understand about the specifications of equipments in hockey and handball
4. To give the basic concept of conducting the tournaments and officiating of hockey and handball.

**Outcome:** Students learn about the different techniques and skills in Handball & Hockey.

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**Handball**

- Current laws and their interpretations; Dimensions, equipment specifications;
- Duties and responsibilities of officials & scoring.
- Fundamental skills
- Advanced skills and tactics
- Specific exercise and drill related to different skills
- Biomechanical analysis of skills
- *Teaching: Preparation, methods & demonstration of lessons*

**Hockey**

- Current laws and their interpretations; Dimensions, equipment specifications;
- Duties and responsibilities of officials & scoring.
- Fundamental skills
- Advanced skills and tactics
- Specific exercise and drill related to different skills
- Biomechanical analysis of skills
- *Teaching: Preparation, methods & demonstration of lessons*

**SUGGESTED READINGS:**

- Jain D (2003). Play & Learn Handball. Khel Sahitya Kendra. New Delhi.
- Kleinman, I. (2009). Complete Physical Education Plans. 2nd Ed. Human Kinetics, USA.
- Page, J. (2000). Ball Games. Lerner Sports Publisher, USA.
- Phillips, B.E. (2009). Fundamental Handball. Kessinger Publishers, USA.
- Schmottlach N Mcmanama J (1997). Physical Education Handbook. 9th Edition. Allyn & Bacon. London.
- Schmottlach, N. and McManama (2005). Physical Education Activity Handbook. Benjamin Cummings, USA.
- Surhone, L.M. et al (2010). Team Handball. Betascript Publishing, USA
- International Hockey Federation (2003). Rules of the Game of Hockey with Guidance for Players and Umpires. International Hockey Federation. India.
- Jain D (2003). Hockey Skills & Rules. khel Sahitya Kendra. New Delhi.
- Narang P (2003). Play & Learn Hockey. Khel Sahitya Kendra. New Delhi.
- Pecknold, R. and Foeste, A. (2009). Hockey: Essential Skills. McGraw Hills, USA.
- Rossiter, S. (2003). Hokcey the NHL Way: Goaltending Illustrated Edition. Sterling Publishers, USA.
- Thani Yograj (2002). Coaching Successfully Hockey. Sports Publication. Delhi.



- Walter, R. and Johnson, M. (2009). Hockey Plays and Strategies. Human Kinetics, USA.
- Weekes, D. (2003). The Biggest Book of Hockey Trivia. Greystone Books, USA.
- Wukovits, J.F. (2000). History of Hockey 1st Ed. Lucent Books, USA.

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## M.P.Ed. Semester-III

Max Marks-100

Credit = 3

### MPED-C-305: TRACK & FIELD-III

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**Objective:** To equip the students with the knowledge of different techniques, measurement, rules, required skills in sprints & high jump and to increase self-confidence through practical application.

**Outcomes:**

1. Illustrate the various physical characteristics of sprints & high jump.
  2. Describe the fundamental techniques of sprints & high jump.
  3. Impart knowledge about the basics rules of sprints & high jump.
  4. Understand about the specifications of equipments in sprints & high jump.
  5. Examine the basic concept of conducting the tournaments and officiating of sprints & high jump.
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#### Sprints

- Analysis of Sprint Techniques
- Factors for Good Sprinter
- Teaching Stages (Progression) of Sprint Run
- Types of Start Techniques
- Types of Finishing Techniques
- Track Layout Procedure and Rules of Track
- *Teaching: Preparation, methods & demonstration of lessons*

#### High Jump

- Analysis of High Jump Techniques
- Qualities of a High Jumper
- Teaching Progression (Stage) for High Jumper
- Different Styles of High Jump
- Runway and Landing Pit
- Rules of High Jump
- *Teaching: Preparation, methods & demonstration of lessons*

#### SUGGESTED READINGS:

- Ken Sparks & Garry Bjorklund.: Long – Distance Runner’s Guide to Training and Racing, Prentice – Hall, Inc., Englewood Cliffs, New Jersey – 07632 (1984).
- Thani V. Encyclopedia of Track & Field (with Latest Rules), Khel Sahitya Kendra – 4264/3, Ansari Road, Darya Ganj, New Delhi (2003).
- Jain R.: Play and Learn Track and Field, KSK, Darya Ganj, New Delhi (2003).
- Dasmohapatra S.C.: The Athletics Guide, Sanjay K. Mohanty Publication (India) Barabati Stadium Cuttack, Orissa (1996).

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