



छत्रपति शाहू जी महाराज विश्वविद्यालय, कानपुर

CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY, KANPUR

(पूर्ववर्ती कानपुर विश्वविद्यालय कानपुर)

Formerly Kanpur University, Kanpur – 208024

## A Documentary Support

*For*

*Metric No. – 1.1.1*

### **Programme Outcomes & Course Outcomes**

*Under the*

**Criteria - I**

**(Curriculum Design and Development)**

**Key Indicator - 1.1**

*In*

**Metric No. – 1.1.1**

### **Master of Physical Education**

  
Co-ordinator  
Internal Quality Assurance Cell  
CSJM University, Kanpur

  
(Registrar)  
C.S.J.M. University  
Kanpur  
REGISTRAR  
C.S.J.M. UNIVERSITY  
KANPUR

**CHHATRAPATI SHAHUJI MAHARAJ UNIVERSITY  
KANPUR (U.P.)**



**SCHOOL OF TEACHERS EDUCATION**

**DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS**

**Choice Based Credit Semester System (CBCSS)**

**COURSE CODE= MPED**

**Master of Physical Education (MPed)**

**(Effective from Academic Year 2021-22)**

**SYLLABUS, COURSE OUTCOMES AND MAPPING (CO's and  
PO's)**

**DEPARTMENT OF PHYSICAL EDUCATION**

**M.P.ED DEGREE PROGRAMME**

**(Effective from Academic Year 2021-22)**

**DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS,  
C.S.J.M., UNIVERSITY KANPUR**

**DESCRIPTION OF DEPARTMENT**

Department of Physical Education was established in July, 2004 under Self Finance Scheme. The first batch of B.P.Ed (Bachelor of Physical Education) has passed out in 2005 Session and in same year Master of Physical Education (M.P.Ed.) courses were started.

The main purpose of establishing this Department was to upgrade the status of Physical Education by producing quality teachers and leaders through graduate and post-graduate courses in the field of Physical Education wherein sports and games were the Key parameters of the Course.

The duration of the Bachelor of Physical Education (B.P.Ed.) course was initially of one year & for (M.P.Ed) course it was two year till 2013-14.

To bring it at par with other professional degree courses, as also to match the international standards, the duration of the course was extended to two years for both the Bachelor and Master Degree Courses.

The National Council of Teacher Education (NCTE) has accorded recognition to both the course. The Department has introduced B.P.Ed & M.P.Ed courses for 2 Year duration with having 4 semesters with an intake of 50 & 40 seats respectively, as per the guidelines of the National Council of Teacher Education (NCTE).

All the above courses are being run in the Department to fulfill the need for trained leadership in Physical Education.

**MOTTO**

Through tireless effort & knowledge, towards *“Excellence in Physical Education and Sports Sciences”*

**THE VISION**

1. To produce competent health conscious Physical Education teachers
2. To create an ideal academic environment for Learning & Teaching and professional growth in Physical Education and various Sports and games and allied areas and provide Leadership to the Profession.
3. To engage in relentless pursuit of excellence in teaching, coaching, research in the field of Physical Education and Sports Sciences at various levels, who will be fully equipped to impart instruction in Physical Education and undertake physical activity programmes.

**THE MISSION**

1. To, improve quality teaching, learning in cognitive, psychomotor and affective domains in Physical Education and Sports.
2. To facilitate, refine and sharpen the coaching and training techniques in Physical Education and Sports.

3. To actively design programme for the promotion and development of fitness and health concept among the students, faculty and the community around us, in matters of common interest and concern.

### **SCOPE OF THE COURSES:**

The Department goes beyond the prescribed curriculum to ensure all round development of the teacher trainees. Many value additions are provided to them like Enhancing Personal Behavioral Sciences, Skills, Leadership/Military Training Camp, Language Proficiency Classes, Yoga/Meditation for all etc. The institute takes pride in excellent placement records. The passed out students of the above courses are eligible for the appointment as Assistant Professors/Lecturer, Physical Education Teacher, Sports officers, Assistant Director, Deputy Director, Director of Physical Education, Supervisors and Fitness Consultants in School, Colleges Universities, Industrial establishments, Commercial firms, Government and non-government agencies which are engaged in promoting physical education and sports. They are also eligible for the commissioned in Army, Navy, Air force and Paramilitary forces.

### **JOBS PROSPECTS:**

An innumerable large number of students opt for this subject considering the fact that there exist good employment opportunities for those with M.P.Ed. degree.

Candidates are absorbed as-

- **Principal and P.E. teacher in schools,**
- **Faculty in colleges, universities**
- **Research Assistant in Projects and,**

with additional diplomas/certifications, they will be preferred as-

- **Fitness trainer,**
- **Yoga instructor,**
- **Coaches in academies and**
- **Sports officers in institutions and**
- **Well-being managers/coaches/instructors in resorts, spas, hotels etc.**

### **OBJECTIVE OF THE DEPARTMENT**

1. To prepare highly qualified leaders/teachers in the field of Physical Education, Sports/Games and other inter-disciplinary subjects.
2. To serve as a center of excellence and innovations in Physical Education and to undertake, promote and disseminate research and also publish literature in this field.
3. To provide professional and academic leadership to other institutions in the field of Physical Education.
4. To provide vocational guidance, counselling, consultancy and placement services.
5. To promote mass participation in Physical Education and Sports.
6. To undertake extension programmes and outreach activities to contribute in the development of society.
7. To develop and promote programmes of Physical Education and Sports in the country.
8. To act as a Nodal Agency/Resource Center in mentoring and guiding various Government and Non-Government Institutes/Agencies of Physical Education, Sports and Fitness.

- 9.** To provide for instruction and training in such branches of learning as it may deem fit.
- 10.** To encourage and produce scientific contemporary literature in the field of Physical Education and Sports.
- 11.** To provide community services in the field of Physical Education and Sports.

## **M.P.ED (TWO YEAR DEGREE PROGRAM):**

**PROGRAM OUTCOMES (PO'S) :** On successful completion of the course a student will be able to:

<b>PO-1 )</b>	Contextualize physical education with a set of attitudes and values that signify the importance of movement as a valued human practice
<b>PO-2)</b>	Qualify for teaching at secondary school level and as experts in fitness industry such as clubs, fitness centers and gyms
<b>PO-3)</b>	Transform themselves into competent teachers with latest domain knowledge and brilliant pedagogical skills
<b>PO-4)</b>	Centralize and acknowledge that the individual, in his /her search for personal meaning, once educated in health, physical education and sports sciences, would be able to make positive contributions to the enhancement of society.
<b>PO-5)</b>	Promote the learning of new skills, enhance, extend, inform and critique the deliberate use of exercise, play, sport and other forms of physical activity within the individual and societal context.
<b>PO-6)</b>	Acquire organizational and management skills necessary in sports settings and in general educational context
<b>PO-7)</b>	Communicate effectively on the complex pedagogical activities with the teaching community, sports team and society at large; and be able to instruct and train teams to perform well.
<b>PO-8)</b>	Perform effectively as an individual, as a member and as a leader in diverse team and multidisciplinary setting.
<b>PO-9)</b>	Make a unique contribution to balanced development and living emphasizing learning focused on movement. Fostering a pedagogy based around critical thought and action.
<b>PO-10)</b>	Become an active player in the modern educational system
<b>PO11:</b>	Apply appropriate techniques, resources and modern tools to make teaching effective
<b>PO12:</b>	Apply ethical principles to become a competent teacher

**The students will be able to-**

1. Critique the theories of learning and the models of teaching; laws and principles applied to exercise, training, and nutrition in physical education, fitness and sport.
2. Design solutions based on health, fitness and sport performance/skills and nutritional measurements for the people engaged in physical activity, fitness and sport.
3. Displays research-based intervention in the academic and professional assignments of physical education, fitness and sport.
4. Demonstrate 21<sup>st</sup> century and EduTech related competencies in all the professional and personal aspects of life.
5. Create concepts, products, solutions, interventions, enterprises in the area of physical education, fitness, sport and nutrition.

6. Attend as the First-Aider in the condition of the injuries or emergencies expected in the events of physical activities, fitness training and sport.
7. Exhibit 21st-century competency and technological proficiency in the professions related to physical education, fitness, and sport.
8. Promote the importance of physical activity and healthy eating/living as a lifelong goal in society.

**PROGRAMME SPECIFIC OUTCOMES (PSO'S):** The learning and abilities or skills that a student would have developed by the end of two-year

<b>PSO-1</b>	Remembering and understanding the concepts, theories, functions, structures, procedures, terminology and skills of physical education and sports sciences.
<b>PSO-2</b>	Applying appropriate tools, methods, strategies, tactics and techniques of teaching and coaching for the development of sports skills and health issues.
<b>PSO-3</b>	Applying and demonstrating skills in different sports and teaching situations.
<b>PSO-4</b>	Analysing and evaluating physical fitness, sports skills, and health issues.
<b>PSO-5</b>	Creating and applying fitness programs, research tools for the promotion of health and fitness.

**The students will be able to-**

1. Apply the behaviorists, cognitivist, and constructivist, connectivist approaches in the teaching, learning and services related to physical education, fitness and sport at school, University, enterprise and society level.
2. Administer physical fitness test, cardiovascular fitness test, personality traits test, 2D, 3D motion and gait analysis, nutritional status and sports skill test to measure performance in health, fitness and sport.
3. Design the training schedule and diet chart to promote regular physical activity and healthy living in schools, fitness clubs, sports academies, and society at large.
4. Demonstrate the skills of qualitative, quantitative and mixed research techniques applicable in the context of physical education teaching, fitness training, coaching and sport.
5. Perform the CPR and First-Aid related skills required to manage medical emergencies at school, University, enterprise and community level during the physical education, fitness and sport activities.
6. Display skills related to communication, collaboration, critical thinking, creativity, leadership, EdTech hard and software usages in the personal and professional aspects of physical education, fitness and sport.
7. Promote the adoption of lifelong physical activities (like Yoga-Asana, Pranayama), 5-6 days/week at a moderate level in society.

**PROGRAM EDUCATIONAL OBJECTIVES (PEO'S) :**

<b>PEO-1 )</b>	<b>Professional Competency:</b> To provide knowledge of professionalism and to teach effective and efficient skills and competencies to prepare professionally
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	qualified teachers in physical education for secondary school education/higher education.
<b>PEO-2)</b>	<b>Personal Transformation:</b> To cultivate the spirit of sportsmanship, mental and physical alertness, scientific temper and optimism; and to change the behaviour, attitude and values of teacher trainees so that they shape into responsible and accountable agents of change in the society, in diverse perspective of concerns and issues vital for human survival, progress and development.
<b>PEO –3)</b>	<b>Preparation for Placement:</b> To prepare qualified professionals of physical education who would be ready for placement as teachers in schools/colleges, and as fitness instructors in fitness centers, coaching centers, clubs and gyms.
<b>PEO –4)</b>	<b>Higher Education:</b> To lay down a sound foundation for higher and advance studies in physical education, coaching and sports sciences.
<b>PEO –5)</b>	<b>Diverse Leadership:</b> To transform the students as competent leaders with essential organizational, managerial and administrative skills for diverse leadership to apply in the field settings
<b>PEO –6)</b>	<b>Life Learning Environment:</b> To inculcate in the students skills, abilities and competencies to create learning environments for all children
<b>PEO –7)</b>	<b>Value and Ethical Skills:</b> To provide knowledge and experiences needed to exhibit effective skills of value and ethics of the teaching domain

**The learner will be expected to –**

1. Evaluate the theories, laws and principles related to exercise, nutrition, and training in physical education, fitness and sport under the changing professional demands with scientific vigour and professionalism.
2. Display skills of research and statistics in decision making, problem-solving, and innovation related to physical education, fitness, sport and nutrition.
3. Demonstrate the pedagogical, administrative and managerial competencies related to physical education and sport needs in the industry, University school and society.
4. Perform First-Aid in the state of medical emergencies expected to occur in the events of physical activities, fitness training and sport.
5. Display the 21st-century competencies and technological proficiency skills related to physical education, fitness sport and nutrition.
6. Advocate the importance of physical activity and healthy eating and living as a lifelong goal for everyone in society.

## MAPPING OF PEO'S WITH PO'S

[illegible]

<b>PEO-5</b>	X			X	X			X	X	X	X	
<b>PEO-6</b>	X	X	X	X	X	X	X	X	X	X		
<b>PEO-7</b>	X			X	X			X	X	X	X	X

**M.P. ED. TWO YEARS PROGRAMME (FOUR SEMESTERS)**  
**REVISED COURSE STRUCTURE (w.e.f 2021-22)**  
**Semester-I**

Semester I							
Part A: Theoretical Course(400 Marks)							
Course Code	Title of the Papers	Credit			Internal Marks	External Marks	Total Marks
		L/T	P/I	Total			
CORE COURSE							
MPCC-101	Research Process & Statistics in Physical Education & Sports Sciences	4	-	4	25	75	100
MPCC 102	Physiology of Exercise	3	1	4	25	75	100
MPCC-103	Tests, Measurement and Evaluation in Physical Education	3	1	4	25	75	100
ELECTIVE COURSE ANYONE)							
MPEC-101	Yogic Sciences	3	1	4	25	75	100
MPEC-102	Sports Technology	3	1	4	25	75	100
PART-B PRACTICAL OURSE(400 MARKS)							
MPPC-101	Games Specialization –I 1.Track and Field: Running, Walking, Hurdle & Relay Events * 2. Gymnastics/ Swimming (*Any one)  (Performance of Any Two Events/Apparatus of each game & Five Lessons of Teaching, Coaching & Officiating of each game (4 Internal & 1 External)	1	3	4	25	75	100
MPPC-102	Laboratory Practical: Sports Psychology, Physiology of Exercise, Sports Biomechanics and Kinesiology (Two practical for each subject)	1	3	4	25	75	100
MPPC-103	Sports and Games –I 1.Yoga (Performance of Asanas, Kriyas, Bandhas& Pranayama) *2. Indigenous activity / Aerobics / Self Defense Technique - Martial Arts, Taekwondo / Karate/ Wushu (Any one activity + Yoga)	1	3	4	25	75	100
MPPC-104	Physical Fitness Test(NPFP “A”)				25	75	100
Total					200	600	800

**DETAILED SYLLABUS**  
**SEMESTER I**  
**PART – A: THEORY – CORE COURSE**  
**MPCC 101: RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS**  
**SCIENCES**

**COURSE OBJECTIVES:**

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

**COURSE LEARNING OUTCOMES:** After completing this course, the students will able to

1. To define research and describe the research process and research methods.
2. To understand the research context within the area of physical Education and sports.
3. To understand the processes and requirements for conducting successful research in physical education and sports.
4. Understand and apply basic research methods.
5. Students use print and electronic library resources effectively and appropriately.
6. To understand the process of sampling, the uses of questionnaires as data-gathering instruments, how a survey is carried out in terms of process and method, the uses of surveys and to be able to capture their own data.
7. Understand and apply basic research methods including research design, data analysis, and interpretation.
8. Students develop testable hypotheses, differentiate research design, evaluate aptness of research conclusions, and generalize them appropriately.
9. Students design and conduct quantitative or qualitative research studies in laboratory or field settings.
10. To know how to apply the basic aspects of the research process in order to plan and execute a research proposal and research report.
11. To be able to present, review and publish scientific articles.

**COURSE CONTENTS**

**Unit I- Introduction:**

Meaning of Research, Need and Importance and its scope in Physical Education, Type of Research, and Survey of Related Literature: Need to Library Search & Sources, Formulation and Development of Research Problem: Location of Research Problem, Criterion in Selecting the Research problem, Hypothesis.

## **Unit II- Methods of Research:**

Historical Research: Scope of Historical Research in Physical Education, Historical evidence, Validity of Historical data. Survey Studies: Place of Survey Research in Physical education. Tools of Survey Research, Questionnaire and interviews. Case Studies: Definition of case Studies Importance of case studies, Characteristics of case Studies. Data Collection in case studies, Experimental Research: Meaning, Scope and nature, Control of Experimental Factors, Experimental Designs.

## **Unit III-Research Proposal and Report:**

Chapterization of Thesis/Dissertation, Front Materials, Body of Thesis-Back Materials, Research Proposal, Writing Abstract and Full Paper for Presenting in Conference and to Publish in Journals, Mechanics of Writing Research Report, Footnote and Bibliography Writing.

## **Unit IV- Statistics Introduction:**

Definition, its uses in Physical Education & Sports Research. Central tendency: Mean (AM & HM), Median. Dispersion: Standard Deviation and Coefficient of Variation, Skewness, Kurtosis, Bivariate Data. Correlation: Product moment correlation coefficient and rank correlation coefficient.

## **Unit V- Inferential Statistics:**

Elementary idea of probability, random variable, Binomial and Normal distribution. Sampling: Random and stratified sampling. Type I and Type II error. Testing various Hypothesis with the help of Z,  $X^2$ , t and F Sampling distributions.

## **TEACHING LEARNING STRATEGIES:**

- ☐ The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

## **MODE OF TRANSACTION**

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

## **ASSESSMENT RUBRICS**

**Marks: 100 (25+75)**

- |                                                                                |           |
|--------------------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                                     | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations /Practical | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                              | Marks: 10 |
| O Tutorial with viva, Discussions /Seminar Presentations                       | Marks: 10 |
| O Assignments (Two Assignments)/Attendance                                     | Marks: 5  |

## **SUGGESTED READINGS**

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

- Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar Pathippagam
- Rothstain, A (1985) Research Design and Statistics for Physical Education, Engle wood Cliffs: Prentice Hall, Inc.

### **COURSE OUTCOMES: Students are able to**

CO 1	To equip students with a basic concepts of research
CO 2	To enable the students to learn the sampling techniques
CO 3	To enable students to choose the most appropriate research method / design to address a particular research question
CO 4	To equip the students to prepare a research proposal for grants
CO 5	To enable the students to prepare a research thesis/report/article for a journal
CO 6	To enable the students to learn the basic concepts of statistics
CO 7	To acquire the skills of parametric and non-parametric statistical methods and apply the appropriate technique for a research data analysis

### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1	2	3				1	2	1	3
2		3	2	1	1	1				
3	1	3	3	2			2		1	3
4	1	3		2			2		1	3
5	1	2	3				1	2	1	3

### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	2
2	2	
3	2	3

**SEMESTER I**  
**PART – A: THEORY – CORE COURSE**  
**MPCC 102: PHYSIOLOGY OF EXERCISE**

**COURSE OBJECTIVES:**

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

**COURSE LEARNING OUTCOMES:**

**After completing this course, the students will be able to**

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

**COURSE CONTENTS**

**UNIT I – Skeletal Muscles and Exercise**

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

**UNIT II – Cardiovascular System and Exercise**

Heart Valves and Direction of the Blood Flow – Conduction System of the Heart – Blood Supply to the Heart – Cardiac Cycle – Stroke Volume – Cardiac Output – Heart Rate – Factors Affecting Heart Rate – Cardiac Hypertrophy – Effect of exercises and training on the Cardio vascular system.

**UNIT III – Respiratory System and Exercise**

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 – 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, Stimulants: Amphetamines, Caffeine, Ephedrine, Sympathomimetic amines. Stimulants and sports performance.

#### **Practicum: (Physiological Assessment)**

- ☐ Measurement of resting heart rate, immediately before and after activity and during activity.
- ☐ Measurement of Blood Pressure by Sphygmomanometer
- ☐ Measurement of Vital Capacity, and Peak Flow Rate.
- ☐ Assessment of Respiratory Rate.

#### **TEACHING LEARNING STRATEGIES:**

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

#### **MODE OF TRANSATCTION**

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

#### **ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

- |                                                                       |           |
|-----------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                            | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations   | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                     | Marks: 10 |
| O Tutorial/Practical with viva, discussions,<br>Seminar Presentations | Marks: 10 |
| O Assignments (Two Assignments) /Attendance                           | Marks: 5  |

#### **SUGGESTED READINGS**

- ☐ Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: PoompugarPathipagam.
- ☐ BeotraAlka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.



- Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
- David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
- Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
- Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
- Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.
- Sandhya Tiwari. (1999). Exercise Physiology. Sports Publishers.
- Shaver, L. (1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.
- Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.
- William, D. Mc Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.
- Kenney, W., Wilmore, J., & Costill, D.(2015) Physiology of sport and exercise. 9781450477673.
- McArdle, W., Katch, F., & Katch, V. (2010). Exercise physiology. Baltimore, MD: Lippincott Williams & Wilkins. ISBN 978-1451191554.
- Raven, P. (2013). Exercise physiology. Australia: Wadsworth Cengage Learning. ISBN 9780495110248.
- Plowman, S., & Smith, D. (2014). Exercise physiology for health, fitness, and performance. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health. ISBN 9781451176117.
- Farrell, P., Joyner, M., & Caiozzo, V. (2012). ACSM's advanced exercise physiology. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins. ISBN 0781797802.

**COURSE OUTCOME:** students are able to

- CO-1 Energy work and power definition of efficiency
- CO-2 Structure and functions of skeletal muscle
- CO-3 About Ventilation
- CO-4 Exercise and training for health and fitness, Athletic performance at attitude
- CO-5 Nutrition and exercise performance and diet activities for fitness

#### MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10

1	1	3		3	1		1	3	2	
2		2	1		2	3		2	3	2
3	2			2		1	2		1	

# **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	3
2	3	
3	1	2

## **SEMESTER I**

### **PART – A: THEORY – CORE COURSE**

#### **MPCC103: TEST MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION**

##### **COURSE OBJECTIVES:**

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

##### **COURSE LEARNING OUTCOMES:** After completing this course, the students will able to

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

## **COURSE CONTENTS**

### **UNIT I – Introduction**

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

### **UNIT II – Motor Fitness Tests**

Meaning and Definition of Motor Fitness. Test for Motor Fitness; Indiana Motor Fitness Test (for elementary and high school boys, girls and College Men) Oregon Motor Fitness Test (Separately for boys and girls), JCR test. Motor Ability; Barrow Motor Ability Test, Newton Motor Ability Test, Muscular Fitness – Kraus Weber Minimum Muscular Fitness Test.

### **UNIT III – Physical Fitness Tests**

Physical Fitness Test: AAHPERD Health Related Fitness Battery (revised in 1984), Rogers 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**

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

## **UNIT V – Skill Tests**

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: Johnson Soccer Test, Mc. Donald Volley Soccer Test. Tennis: Dyer Tennis Test.

## **PRACTICUM**

Tests of unit II, III, & IV should be conducted practical also.

## **TEACHING LEARNING STRATEGIES**

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

## **MODE OF TRANSATCTION**

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

## **ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

<input type="checkbox"/> End Semester Exam	Marks: 75
<input type="checkbox"/> Classroom Test, Assignments, Presentations	Marks: 25
O Classroom Tests: Best one out of two unit tests	Marks: 10
O Tutorial with viva, discussions, Seminar Presentations	Marks: 10
O Assignments (Two Assignments) /Attendance	Marks: 5

## **SUGGESTED READINGS**

- ☐ Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: PoompugarPathipagam.
- ☐ BeotraAlka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
- ☐ Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
- ☐ David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
- ☐ Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
- ☐ Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
- ☐ Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.
- ☐ Sandhya Tiwari. (1999). Exercise Physiology. Sports Publishers.
- ☐ Shaver, L. (1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.
- ☐ Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.

- William, D. McArdle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.
- Kenney, W., Wilmore, J., & Costill, D. (2015) Physiology of sport and exercise. 9781450477673
- McArdle, W., Katch, F., & Katch, V. (2010). Exercise physiology. Baltimore, MD: Lippincott Williams & Wilkins. ISBN 978-1451191554

### **COURSE OUTCOME students are able to**

- CO-1 Explain the basics of measurement and evaluation of various test and measurement techniques.
- CO-2 Develop the concepts of measurement and evaluation in physical education and sports
- CO-3 Develop ability to construct new tests for various need related to Physical Education and Sports with scientific authenticity
- CO-4 To analyze various test and performance related to physical education

### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2	1	3			2		3	1	1
2	2			1				3	2	1
3		1	1		2			3		
4	2			1				3	2	1

### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1		
2	2	1
3	1	2

**SEMESTER I**  
**PART – A: THEORY – ELECTIVE COURSE**  
**MPEC 101: YOGIC SCIENCES**

**COURSE OBJECTIVES:**

1. To appraise an understanding of the principles of yogic practices
2. To Acquaint with various types of asanas, pranayam, kriyas
3. To integrate sports with yoga for performance enhancement

**COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

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

**COURSE CONTENTS**

**UNIT I – Introduction**

Meaning and Definition of Yoga. Astanga Yoga: Yama, Niyama, Asana, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi, Concept of Yogic Practices; Principles of Breathing – Awareness – Relaxation, Sequence – Counter pose – Contra- Indication – Inverted asana – Sunbathing. Effect of yoga on following diseases: asthma, jaundice, blood pressure and stress.

**UNIT II – Asanas and Pranayam**

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

**UNIT III – Kriyas**

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

**UNIT IV – Mudras**

Meaning, Techniques and Benefits of Hasta Mudras, Anamyuktahastam, Samyuktahastam, 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**

Yoga Supplemental Exercise – Yoga Compensation Exercise – Yoga Regeneration Exercise Power Yoga. Role of Yoga in Psychological Preparation of athlete: Mental Wellbeing, Anxiety, Depression Concentration, Self Actualization. Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous, Respiratory, Excretory System.

## TEACHING LEARNING STRATEGIES

- The content of the syllabus may be taught by using lecture method, discussion method, quiz method, educational videos, charts and assignment method depending upon the resources and facilities available at the University/Institute/ Department/Colleges.

## MODE OF TRANSACTION

- Lecture/Discussions/Fieldwork/Project Work/Viva/Seminars/Term Papers/Presentations/Self-Learning Instructional Material etc.

## ASSESSMENT RUBRICS

**Marks: 100 (75+25)**

- ☐ End Semester Exam Marks: 75
- ☐ Classroom Test, Assignments, Presentations Marks: 25
- ☐ O Classroom Tests: Best one out of two unit tests Marks: 10
- ☐ O Tutorial with viva, discussions, Seminar Presentations Marks: 10
- ☐ O Assignments (Two Assignments) /Attendance Marks: 5

## SUGGESTED READINGS

- ☐ Aurobindo. (1974). Lights on Yoga – Aurobindo Ashramam,
- ☐ Brown, F. Y. (2000). How to use yoga. Delhi: Sports Publication.
- ☐ Gharote, M. L. & Ganguly. H. (1988). Teaching methods for yogic practices. Lonawala: Kaivalyadhama,
- ☐ Rajjan, S. M.(1985). Yoga strengthening of relaxation for sports man. New Delhi: Allied
- ☐ Shankar, G. (1998). Holistic approach of yoga. New Delhi: Aditya Publishers.
- ☐ Shekar, K. C. (2003). Yoga for health. Delhi: Khel Sahitya Kendra Publishers.

## COURSE OUTCOME students are able to

- CO-1 Learning about history of yoga
- CO-2 About Kriyas, Asanas, Pranayamas, Mudras, Bandhas, Meditation
- CO-3 Existence of Nadis, Chakras and the nervous system, yogic practices for awakening chakras
- CO-4 Benefits of yoga diet, wellness, basics
- CO-5 Yoga and spirituality

## MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1		2	3	1		2	1		1	
2	1		1	3	2	1	2		3	2
3	2	3		2	1	3		2		1

## MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
1		
2	2	2
3	3	1



## **SEMESTER I**

### **PART – A: THEORY – ELECTIVE COURSE**

#### **MPEC 102: SPORTS TECHNOLOGY**

##### **COURSE OBJECTIVES:**

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

##### **COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

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

##### **COURSE CONTENTS**

###### **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, nanomoulding 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 equipment's. Use of computer and software in Match Analysis and Coaching.

###### **UNIT IV – Modern equipment**

Playing Equipment's: Balls: Types, Materials and Advantages, Bat/Stick/ Racquets: Types, Materials and Advantages. Clothing and shoes: Types, Materials and Advantages. Measuring equipment's: Throwing and Jumping Events. Protective

equipment's: 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.

### **Practical/Field Visit**

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

### **TEACHING LEARNING STRATEGIES:**

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

### **MOLDE OF TRANSACTION**

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

### **ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

- |                                                                       |           |
|-----------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                            | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations   | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                     | Marks: 10 |
| O Tutorial/Practical with viva, discussions,<br>Seminar Presentations | Marks: 10 |
| O Assignments (Two Assignments) /Attendance                           | Marks: 5  |

### **SUGGESTED READINGS**

- ☐ 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.
- ☐ Jenkins M., Editor Materials in Sports Equipment, Volume I (Elsevier, 2003)Colin White, Projectile Dynamics in Sport: Principles and Applications
- ☐ Eric C. et al., Editor Sports Facility Operations Management (Routledge, 2010).
- ☐ Brasch, N. (2010). Sports and sporting equipment. South Yarra, Vic.: Macmillan Education. Australia. -10: 142026902X. -13: 978-1420269024
- ☐ Bruce, L., Hilvert, J., & Hilvert-Bruce, A. (2005). Sports technology. South Yarra, Vic.: Macmillan Library. 10: 0732997461ISBN -13: 978-0732997465

- Magdalinski, T. (2009). Sport, technology and the body. London: Routledge. ISBN: 0415378761
- Edmundson, C. Sports technology. Bloomsbury ISBN-10: 1408832593. ISBN-13: 978-1408832592

### **COURSE OUTCOMES: Students are able to**

- CO 1** To enable students to learn the fundamental of sports technology
- CO 2** To equip the students to learn the technology used in sports
- CO 3** To understand the different types of playfield surfaces, sports equipment's and its advantages
- CO 4** To familiarise the students with the latest technology involved in sports and games

### **MAPPING (CO's and PO's)**

course outcomes	Program Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
1	3	2	3			1		
2	3	2		1	1		2	2
3	3	2	3			1		3
4	3	2					3	

### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	3
2		
3	2	1

**Semester-II**

Part A: Theoretical Course(400 Marks)							
Course Code	Title of the Papers	Credit			Internal Marks	External Marks	Total Marks
		L/T	P/I	Total			
CORE COURSE							
MPCC-201	Professional Preparation and Curriculum Designs in Physical Education	4		4	25	75	100
MPCC 202	Sports Biomechanics & Kinesiology	3	1	4	25	75	100
MPCC-203	Athletic Care and Rehabilitation	3	1	4	25	75	100
Elective Course (Anyone)							
MPEC-201	Sports Journalism and Mass Media	3	1	4	25	75	100
MPEC-202	Sports Management	3	1	4	25	75	100
PART-B PRACTICAL COURSE(400 MARKS)							
MPPC-201	Games Specialization –II 1.Track and Field: Jumping events *2. Gymnastics/ Swimming (*Anyone) (Performance of Any Two Events / Apparatus of each game & Five Lessons of Teaching, Coaching & Officiating of each Game	1	3	4	25	75	100
MPPC-202	Sports and Games –II Cricket/Volleyball/Basketball/ Football/Handball/ Hockey/ Netball (Any Two games Individual Skill, Game Situation, Officiating, Lead-Up games)	1	3	4	25	75	100
MPPC-203	Adventure or Leadership Camp /Tour / Training & Seminar (4 Internal & 1 External) (Topics on sports, yoga, wellness, health & fitness their research findings, survey of literature, development, historical or current issues.	1	3	4	25	75	100
MPPC-204	Physical Fitness Test (NFPF “B”)	1	3	4	25	75	100
Total					200	600	800

## **DETAILED SYLLABUS**

### **SEMESTER- II**

#### **PART – A: THEORY – CORE COURSE**

### **MPCC 201: PROFESSIONAL PREPARATION IN PHYSICAL EDUCATION AND SPORTS SCIENCES**

#### **COURSE OBJECTIVES:**

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

#### **COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

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

#### **COURSE CONTENTS**

**UNIT I-** Features of Indian Democracy with regards to Contribution of Physical Education & sports. Historical review of Professional preparations in India. Role of the Government & non-official agencies in Accreditation /Certification, preparation and in improving professional preparation. Aim & purposes in professional Preparation, Basic principles of curriculum construction, Organization in general education, Preparation of General Education, allied and foundational subject.

**UNIT II-** Physical Education Graduate & Post-graduate level Professional Preparation Areas, Purposes, admissions, Curriculum, Laboratory experience, Field Experiences, Teaching Practice, area of specialization and concentration on core areas, Research requirement, Methods of instruction, Professional competencies, facilities and special resources for Library, Laboratory, Staff placement and follow-up.

**UNIT III-** Importance of Curriculum Development, factors affecting curriculum, changing needs of student, National and professional policies. The role of teacher in curriculum Development. Principles of planning Professional preparation, Evaluation and follow-up. Selecting material for Instruction- Calculations of activities in Physical Education, Cultural influence in the choice of activities and flexibility of programme material.

**UNIT IV-** Selecting methods of teaching - Grouping of students for instruction, Lectures, Projects activities, demonstration, block of period, total time allotment for a given activity, teaching aids, conditioning special gadgets to concentrate on development of particular skills, bring up pre-requisites for learning a given skill or activity, provision for individual differences. Development programme suitability of activities for different age groups and sexes, for different levels of education - Kindergarten

elementary school, middle school, 10 + 2 school, college and university, special institution (Technical school, orphan hostel & for challenged people) special days and national days etc.

**UNIT V-** Co-education in Physical Education - Integrating the programmes for boys and girls, activities suitable for co-education needs, level at which co-education is desirable, special provision for development of girls programme.

Committee recommendation – NCTE, NCERT, CBSE, UGC recommendations on curriculum for school and colleges curriculum followed in colleges of physical education CPed, DPed, BPE, B.Sc, BPed, MPE, MPed and M. Phil.

### **TEACHING LEARNING STRATEGIES:**

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

### **MODE OF TRANSACTION**

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

### **ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

<input type="checkbox"/> End Semester Exam	Marks: 75
<input type="checkbox"/> Classroom Test, Assignments, Presentations	Marks: 25
<input type="radio"/> Classroom Tests: Best one out of two unit tests	Marks: 10
<input type="radio"/> Tutorial with viva, discussions, Seminar Presentations	Marks: 10
<input type="radio"/> Assignments (Two Assignments) /Attendance	Marks: 5

### **SUGGESTED READINGS**

- ☐ Kelly, L., & Melodrama, V.(2014) Developing the physical education curriculum. ISBN-13: 9781478627043 ISBN-10: 1478627042
- ☐ James, J. (2005). Curriculum design in physical education and sports. New Delhi: Friends Publications (India). ISBN-10: 8172161433. ISBN-13: 978-8172161439 Shinde, B. (2011).
- ☐ Curriculum design in physical education. New Delhi: Sports Publication. ISBN-10: 8178796260. ISBN-13: 978-8178796260
- ☐ Mohnsen, B. (2008). Teaching middle school physical education. Champaign, IL: Human Kinetics. ISBN-13: 978-0736068499 ISBN-10: 073606849X
- ☐ Gupta, R., Sharma, A., & Sharma, S. (2004). Professional preparation and curriculum designs in physical education and sports. New Delhi: Friends Publications. ISBN 13: 9788172160821 (978-81-7216-082-1) ISBN: 8172160828 (81-7216-082-8)

### **COURSE OUTCOME students are able to**

**CO-1** Know sports management and employ principles of strategic planning, and financial and human resource management required in Professional Preparation.

**CO-2** Conceive, plan, execute, and evaluate a Curriculum Development and design

**CO-3** Introduce the teaching and curriculum objectives and course module design

**CO-4** Analyse the planning strategies, teaching, learning and assessment

**CO-5** Assess marketing needs and formulate short term and long term solutions. Students will be able to design need based curriculum of PE various groups.

#### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1		3		1	1	2		2	
2	2			2			1	3	1	
3		2	3	1				2	1	

#### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	3
2		1
3	1	2

## **SEMESTER – II**

### **PART – A: THEORY – CORE COURSES**

#### **MPCC 202: KINESIOLOGY AND SPORTS BIOMECHANICS**

##### **COURSE OBJECTIVES:**

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

##### **COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

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

##### **COURSE CONTENTS**

###### **UNIT I – Introduction**

Meaning, nature, role and scope of Applied kinesiology and Sports Biomechanics. Meaning of Axis and Planes, Dynamics, Kinematics, Kinetics, Statics Centre of gravity -Line of gravity plane of the body and axis of motion, Vectors and Scalars.

###### **UNIT II – Muscle Action**

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

###### **UNIT III – Motion and Force**

Meaning and definition of Motion. Types of Motion: Linear motion, angular motion, circular motion, uniform motion. Principles related to the law of Inertia, Law of acceleration, and law of counter force. Meaning and definition of force- Sources of force -Force components. Force applied at an angle - pressure -friction -Buoyancy,



Spin - Centripetal force - Centrifugal force.

#### **UNIT IV – Projectile and Lever**

Freely falling bodies -Projectiles -Equation of projectiles stability Factors influencing equilibrium - Guiding principles for stability -static and dynamic stability. Meaning of work, power, energy, kinetic energy and potential energy. Leverage -classes of lever - practical application. Water resistance - Air resistance -Aerodynamics. Note: Laboratory practical's should be designed and arranged for students internally.

#### **UNIT V – Movement Analysis**

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

#### **LIST OF PRACTICUM**

- ☐ Analysis of movement:
- ☐ Types of analysis, Kinesiological, Biomechanical
- ☐ Methods of analysis – Qualitative, Quantitative, Predictive

#### **TEACHING LEARNING STRATEGIES**

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

#### **MODE OF TRANSACTION**

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

#### **ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

- |                                                                     |           |
|---------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                          | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                   | Marks: 10 |
| O Tutorial with viva, discussions, Seminar Presentations            | Marks: 10 |
| O Assignments (Two Assignments) /Attendance                         | Marks: 5  |

#### **SUGGESTED READINGS**

- ☐ McGinnis, P. (2013). Biomechanics of sport and exercise. Champaign, IL: Human Kinetics. ISBN 9780736079662.
- ☐ Blazeovich, A. (2007). Sports biomechanics. London: A. & C. Black. ISBN 9780713678710

- Bartlett, R. (2007). Introduction to sports biomechanics. London: Routledge, Taylor & Francis Group. ISBN 9780415339933
- Hall, S. (2014) Basic biomechanics. Mcgraw Hill Higher Educat. ISBN 9780073522760
- Knudson, D. (2007). Fundamentals of biomechanics. New York, NY: Springer. ISBN 978-0-387-49311-4
- Deshpande S.H. (2002), Manav KriyaVigyan – 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)

#### **COURSE OUTCOME students are able to**

CO-1	Definition of Sports Biomechanics
CO-2	Linear Kinematics: Describing Objects in Linear Motion
CO-3	Explaining the Causes of Motion without Newton
CO-4	Describing Objects in Angular Motion-Angular position, velocity, acceleration-Anatomical
CO-5	Biomechanical characteristics of walking-running-Biomechanics of Jumping

#### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1	3	3		1	3	2	1		3
2		2	2	1		1		3	2	
3	2		1	2	3		1		1	2

#### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	
2		1
3	2	2

## **SEMESTER – II**

### **PART – A: THEORY – CORE COURSES**

#### **MPCC 203: ATHLETIC CARE AND REAHABILITATION**

##### **COURSE OBJECTIVES:**

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

##### **COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

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

#### **COURSE CONTENTS**

##### **UNIT I – Corrective Physical Education**

Definition and objectives of corrective physical Education. Posture and body mechanics, Standards of Standing Posture. Value of good posture, Drawbacks and causes of bad posture. Posture test – Examination of the spine.

##### **UNIT II – Posture**

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

##### **UNIT III – Rehabilitation Exercises**

Passive, Active, Assisted, resisted exercise for Rehabilitation, Stretching, PNF techniques and principles.

##### **UNIT IV – Massage**

Brief history of massage – Massage as an aid for relaxation – Points to be considered in giving massage – Physiological , Chemical, Psychological effects of massage – Indication / Contra indication of Massage – Classification of the manipulation used massage and their specific uses in the human body – Stroking manipulation: Effleurage – Pressure manipulation: Petrissage Kneading (Finger, Kneading, Circular) ironing Skin Rolling – Percussion manipulation: Tapotement, Hacking, Clapping, Beating, Pounding, Slapping, Cupping, Poking, Shaking Manipulation, Deep massage.

##### **UNIT V – Sports Injuries Care, Treatment and Support**

Principles pertaining to the prevention of Sports injuries – care and treatment of exposed and unexposed injuries in sports – Principles of apply cold and heat, infrared

rays – Ultrasonic, Therapy – Short wave diathermy therapy. Principles and techniques of Strapping and Bandages.

## LIST OF PRACTICUM

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

## TEACHING LEARNING STRATEGIES:

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

## MODE OF TRANSACTION

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

## ASSESSMENT RUBRICS

**Marks: 100 (75+25)**

- |                                                                     |           |
|---------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                          | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                   | Marks: 10 |
| O Tutorial with viva, discussions, Seminar Presentations            | Marks: 10 |
| O Assignments (Two Assignments) /Attendance                         | Marks: 5  |

## SUGGESTED READINGS

- ☐ Fritz, S. (2013) Sports & exercise massage. Elsevier mosby ISBN-13: 978-0323083829 ISBN- 10: 032308382X
- ☐ McKone, W. (1997). Osteopathic athletic health care. London: Chapman & Hall. 13: 978
- ☐ Magee, D. (2011). Athletic and sport issues in musculoskeletal rehabilitation. St. Louis, Mo. Elsevier/Saunders.13: 979
- ☐ Miniaci, A., &Iannotti, J. (2014). Disorders of the shoulder. Philadelphia: Wolter. Kluwer/Lippincott Williams & Wilkins Health. ISBN-13: 978-1451130584.10: 145
- ☐ Puddu, G., Giombini, A., &Selvanetti, A. (2001). Rehabilitation of sports injuries. Berlin : Springer. ISBN-13: 978-3540674757. 10: 354

## COURSE OUTCOME students are able to

- |      |                                                                                                                                               |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| CO-1 | Understand the primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes. |
| CO-2 | Demonstrate the basics of sport first aid during and after game situation.                                                                    |

**CO-3** Recognise and appropriately treat common sports injuries and conditions from onset through rehabilitation.

**CO-4** Identify and apply knowledge of anatomy to the design and execution of research studies.

#### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	3		1				1	3	2	
2	2	1		2			3	1		
3		2	3			1			2	3

#### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	1
2	1	3
3		

## **SEMESTER – II**

### **PART- B: THEORY – ELECTIVE COURSE**

#### **MPEC 201: SPORTS JOURNALISM AND MASS COMMUNICATION**

##### **COURSE OBJECTIVES:**

1. To apprise the students about the origin and evolution of journalism and mass media.
2. To synthesize a basic concept of reporting and editing.
3. To appraise the varied aspects of advertising.

##### **COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

1. Apply the concept of reporting and editing.
2. Illustrate and apply the advertising concepts.
3. Interpret the concept of journalism and mass media

##### **COURSE CONTENTS**

###### **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.

##### **TEACHING LEARNING STRATEGIES**

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

### MODE OF TRANSACTION

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

### ASSESSMENT RUBRICS

**Marks: 100 (75+25)**

<input type="checkbox"/> End Semester Exam	Marks: 75
<input type="checkbox"/> Classroom Test, Assignments, Presentations	Marks: 25
O Classroom Tests: Best one out of two unit tests	Marks: 10
O Tutorial with viva, discussions, Seminar Presentations	Marks: 10
O Assignments (Two Assignments) /Attendance	Marks: 5

### SUGGESTED READINGS

- 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
- Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
- Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
- Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication.
- Billings, A., Butterworth, M., & Turman, P. (2012). Communication and sport. Thousand Oaks, Billings, A. (2014) Routledge handbook of sport and new media. Routledge ISBN-13: 978- 0415532761 ISBN-10: 0415532760.
- Billings, A., Butterworth, M., & Turman, P.(2014) Communication and sport.ISBN-13: 978 1452279138ISBN-10: 1452279136
- Sandvoss, C., Real, M., & Bernstein, A. (2012). Bodies of discourse. New York, NY: PeterLang.ISBN-13: 978-1433111730ISBN-10: 143311173X

### COURSE OUTCOMES(COS): students will be able to

CO-1	Know the concept of Sports Media
CO-2	Acquire in-depth knowledge on Sports Journalism
CO-3	Understand the types of Channels available for Event Management

**MAPPING (CO's and PO's)**

Course Outcomes	Program Outcomes									
	1	2	3	4	5	6	7	8	9	10
1	1				1			2		2
2	2	2			1			2		3
3	2		2	2		1			3	

**MAPPING (CO's and PSO's)**

Course Outcomes	Program Specific Outcomes	
	1	2
1	3	2
2	2	3
3	2	3



**SEMESTER – II**  
**PART- B: THEORY – ELECTIVE COURSE**  
**MPEC 202: SPORTS MANAGEMENT**

**COURSE OBJECTIVES:**

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

**COURSE LEARNING OUTCOMES:**

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

**COURSE CONTENTS**

**UNIT I- Management:**

Meaning and Functions, The skills of management, the universal nature of the management process, Management and Administration, Principles and Theories of Management.

**UNIT II- Organization:**

Classical Principles, Bureaucracy; Bureaucracy in Democracy and in sports organizations. Open systems perspectives. The constitution of a national sports organization, office holders of an organization and their functional meetings.

**UNIT III- Human resource management:**

Definition & Aspect of HRM, Job analysis and its process. Human resource planning, Recruitments, Manpower Planning, Personal Management and its principles, Appraisals & Public Relation in physical education.

**UNIT IV- Management of performance:**

Evaluation and its techniques in physical education. Sports competition and its system, Training structure & performance. Injury management, Ethics of sports.

**UNIT V- Management of finance, Facilities and material:**

Financial administration in sports and physical education, Sources of funds in sports. Budgeting in sports and games, purpose and principles of budgeting.

Material Management: Improvisation and Standardization of Sports equipment's and materials. Scientific purchasing. Storekeeping, inventory control and value analysis.

Facility (outdoor and indoor) Planning, Construction and maintenance of sports facilities.

**TEACHING LEARNING STRATEGIES**

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

## MODE OF TRANSACTION

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

## ASSESSMENT RUBRICS

**Marks: 100 (75+25)**

<input type="checkbox"/> End Semester Exam	Marks: 75
<input type="checkbox"/> Classroom Test, Assignments, Presentations	Marks: 25
O Classroom Tests: Best one out of two unit tests	Marks: 10
O Tutorial with viva, discussions, Seminar Presentations	Marks: 10
O Assignments (Two Assignments) /Attendance	Marks: 5

## SUGGESTED READINGS

- ☐ Charles, A, Bucher & March, L, Krotee. (1993). Management of Physical Education and Sports. St. Louis: Mosby Publishing Company.
- ☐ Chelladurai, P. (1999). Human Resources Management in Sports and Recreation. Human Kinetics.
- ☐ John, E, Nixon & Ann, E, Jewett. (1964). Physical Education Curriculum, New York: The Ronald Press Company.
- ☐ Williams, J.F. (2003). Principles of Physical Education. Meerut: College Book House.
- ☐ Yadvinder Singh. Sports Management, New Delhi: Lakshay Publication
- ☐ Bill, K. (2009). Sport management. Exeter [England]: Learning Matters.ISBN-13: 978-1844452637. ISBN-10: 1844452638
- ☐ Smith, A., & Stewart, B. (1999). Sports management. St Leonards, N.S.W.: Allen &Unwin.ISBN-13: 978-1864487510. ISBN-10: 1864487518
- ☐ Hoye, R. (2012). Sport management. Milton Park, Abingdon, Oxon: Routledge. ISBN-13:978-1856178198, ISBN-10: 1856178196
- ☐ Bowers, M. (2015). Sport management. Champaign: Sagamore Publishing.ISBN-10: 1571677267. ISBN-13: 978-1571677266
- ☐ Krotee, M., & Bucher, C. (2007). Management of physical education and sport. Boston: McGraw-Hill.ISBN-10: 0072972920. ISBN-13: 978-007297292

## COURSE OUTCOME students are able to

- CO-1** Know sports management and employ principles of strategic planning, and financial and human resource management.
- CO-2** Assess marketing needs and formulate short term and long term solutions.
- CO-3** Develop critical thinking in analysing sport management issues and in managerial planning and decision making.
- CO-4** Able to organize recreational camp and activities

**MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2		3		1	1	2		2	
2	3			2			1	3	1	
3		2	3	1				2	1	

**MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1		
2	2	1
3	1	3

### Semester-III

Part A: Theoretical Course(400 Marks)							
Course Code	Title of the Papers	Credit			Internal Marks	External Marks	Total Marks
		L/T	P/I	Total			
CORE COURSE							
MPCC-301	Scientific Principles of Sports Training	4	-	4	25	75	100
MPCC 302	Sports Medicine	3	1	4	25	75	100
MPCC-303	Health Education and Sports Nutrition	3	1	4	25	75	100
Elective Course (Anyone)							
MPEC-301	Sports Engineering	3	1	4	25	75	100
MPEC-302	Physical Fitness and Wellness	3	1	4	25	75	100
Part-B Practical Course(400 Marks)							
MPPC-301	Games Specialization –III 1.Track and Field: Throwing Events *2. Gymnastics /Swimming (*Any one)  (Performance of Any Two Events/Apparatus of each game & Five Lessons of Teaching, Coaching & Officiating of each game	1	3	4	25	75	100
MPPC-302	Sports and Games – III Kabaddi/Kho-Kho/ Boxing/ Judo/Wrestling/ Baseball / Softball  (Any Two games Individual Skill, Game Situation, Officiating, Lead-Up games)	1	3	4	25	75	100
MPPC-303	Internship(Internal) & Project	1	3	4	25	75	100
MPPC-304	Physical Fitness Test	1	3	4	25	75	100

	(Canadian)						
Total					200	600	800

## **DETAILED SYLLABUS**

### **SEMESTER III**

#### **PART – A – THEORY – CORE COURSE**

#### **MPCC 301: SCIENTIFIC PRINCIPLES OF SPORTS TRAINING**

#### **COURSE OBJECTIVES:**

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

#### **COURSE LEARNING OUTCOMES:**

**After completing this course, the students will be able to**

- Understand the modern concept of sports training.
- Describe the principles of sports training.
- Evaluate and develop system of sports training – basic performance, intermediate performance and high performance training.
- Develop Plan for training sessions.
- Apply the Methods of technical and tactical training.
- Compose training programme for fitness components.
- Design phases of periodization.

#### **COURSE CONTENTS**

#### **MPCC-301 SCIENTIFIC PRINCIPLES OF SPORTS TRAINING**

##### **UNIT I – Introduction**

Sports training: Definition – Aim, Characteristics, Principles of Sports Training, Over Load: Definition, Causes of Over Load, Symptoms of Overload, Remedial Measures – Super Compensation – Altitude Training – Cross Training

##### **UNIT II – Components of Physical Fitness**

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

##### **UNIT III – Flexibility**

Flexibility: Methods to Improve the Flexibility- Stretch and Hold Method, Ballistic Method, Special Type Training: Plyometric Training. Training for Coordinative abilities: Methods to improve Coordinative abilities: Sensory Method, Variation in Movement Execution Method, Variation in External Condition Method, Combination of Movement Method, Types of Stretching Exercises.

##### **UNIT IV – Training Plan**

Training Plan: Macro Cycle, Meso-Cycle. Short Term Plan and Long Term Plans - Periodization:

Meaning, Single, Double and Multiple Periodization, Preparatory Period, Competition Period and Transition Period.

### **UNIT V – Doping**

Definition of Doping – Side effects of drugs – Dietary supplements – IOC list of doping classes and methods. Blood Doping – The use of erythropoietin in blood boosting – Blood doping control – The testing programmes – Problems in drug detection – Blood testing in doping control – Problems with the supply of medicines Subject to IOC regulations: over the- counter drugs (OTC) – prescription only medicines (POMs) – Controlled drugs (CDs). Reporting test results – Education

### **TEACHING LEARNING STRATEGIES:**

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

### **MODE OF TRANSATCTION**

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

### **ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

<input type="checkbox"/> End Semester Exam	Marks: 75
<input type="checkbox"/> Classroom Test, Assignments, Presentations	Marks: 25
<input type="checkbox"/> Classroom Tests: Best one out of two unit tests	Marks: 10
<input type="checkbox"/> Tutorial with viva, discussions, Seminar Presentations	Marks: 10
<input type="checkbox"/> Assignments (Two Assignments) /Attendance	Marks: 5

### **SUGGESTED READINGS:**

- ☐ BeotraAlka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.
- ☐ Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc.
- Cart, E. Klafs & Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C. V. Mosphy Company
- ☐ Daniel, D. Arnheim (1991) Principles of Athletic Training, St. Luis, Mosby Year Book
- ☐ Wuest, D., & Fisette, J. (2014) Foundations of physical education, exercise science, and sport. McGraw-Hill Higher Education; ISBN-10: 0073522775 ISBN-13: 978-0073522777
- ☐ Bompa, T., & Haff, G. (2009). Periodization. Champaign, IL.: Human Kinetics. ISBN-13: 9780736074834
- ☐ Haff, G., & Triplett, N. Essentials of strength training and conditioning. Champaign, IL.: Human Kinetics. ISBN-13: 9780736065832
- ☐ Bompa, T., & Carrera, M. (2005). Periodization training for sports. Champaign, Ill.: Human Kinetics.
- ☐ Zatsiorsky, V., & Kraemer, W. (2006). Science and practice of strength training. Champaign, IL: Human Kinetics. ISBN 10: 0736056289

**COURSE OUTCOME students are able to**

CO-1	Training about Practice, Ground activities, Physical education
CO-2	Periodization of planning WADA
CO-3	Motor Abilities Strength about exercise
CO-4	Endurance of Methods of improvement of Co-ordinative abilities
CO-5	Coaching Methods Psychological preparation

**MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1		1	3	1		2	3		2
2	2			1		2	3		1	3
3	2		2		2		1	1	2	

**MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	3	1
2	1	2
3	2	3



**SEMESTER III**  
**PART A – THEORY – CORE COURSE**  
**MPCC 302: SPORTS MEDICINE**

**COURSE OBJECTIVES:**

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

**COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

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

**COURSE CONTENTS**

**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 injuries.

### **LIST OF PRACTICUM**

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

### **TEACHING LEARNING STRATEGIES:**

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

### **MODE OF TRANSACTION**

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

### **ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

- |                                                                     |           |
|---------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                          | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                   | Marks: 10 |
| O Tutorial with viva, discussions, Seminar Presentations            | Marks: 10 |
| O Assignments (Two Assignments) /Attendance                         | Marks: 5  |

### **SUGGESTED READINGS**

- ☐ Fritz, S. (2013) Sports & exercise massage. Elsevier mosby ISBN-13: 978-0323083829 ISBN- 10: 032308382X
- ☐ McKone, W. (1997). Osteopathic athletic health care. London: Chapman & Hall. 13: 978
- ☐ Magee, D. (2011). Athletic and sport issues in musculoskeletal rehabilitation. St. Louis, Mo. Elsevier/Saunders.13: 979
- ☐ Miniaci, A., &Iannotti, J. (2014). Disorders of the shoulder. Philadelphia: Wolter. Kluwer/Lippincott Williams & Wilkins Health. ISBN-13: 978-1451130584.10: 145
- ☐ Puddu, G., Giombini, A., &Selvanetti, A. (2001). Rehabilitation of sports injuries. Berlin : Springer. ISBN-13: 978-3540674757. 10: 354

### **REFERENCE**

- Christopher M. Norris. (1993). Sports Injuries Diagnosis and Management for Physiotherapists. East Kilbride: Thomson Litho Ltd.
- James, A. Gould & George J. Davies. (1985). Physical Therapy. Toronto: C.V. Mosby company.
- Morris, B. Mellin. (1989). Sports Injuries and Athletic Problems. New Delhi: Surjeet Publication.
- Pande. (1998). Sports Medicine. New Delhi: KhelShitya Kendra
- The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine. Australia: Tittel Blackwell scientific publications.

#### **COURSE OUTCOME students are able to**

- CO-1 Learning about Sports Injuries of Upper Limb
- CO-2 Learning about Sports Injuries of Lower Limb
- CO-3 Sports Injuries of Head and Neck and Trunk
- CO-4 General Medical conditions
- CO-5 Females Specific Sports Injuries

#### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	3		1				1	3	2	
2	2	1		2			3	1		
3		2	3			1			2	3

#### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1		
2	2	1
3	1	2

## **SEMESTER III**

### **PART – A: THEORY – CORE COURSE**

#### **MPCC 303: HEALTH EDUCATION AND SPORTS NUTRITION**

#### **COURSE OBJECTIVES**

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

#### **COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

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

#### **COURSE CONTENTS**

##### **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**

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

##### **UNIT III – Hygiene and Health**

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

##### **UNIT IV- Sports Nutrition**

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

#### **LIST OF PRACTICUM**

- ☐ Visit to factory and note down the occupational hazards/accidents that occur due to working conditions and prevention.
- ☐ Visit to Milk dairy and prepare a report based on the observation of the process of preparing milk.
- ☐ Visit to Institute Mess and/or Hotel and suggest steps to improve the hygiene there.

## TEACHING LEARNING STRATEGIES

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

## MODE OF TRANSACTION

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

## ASSESSMENT RUBRICS

**Marks: 100 (75+25)**

- |                                                                     |           |
|---------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                          | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                   | Marks: 10 |
| O Tutorial with viva, discussions, Seminar Presentations            | Marks: 10 |
| O Assignments (Two Assignments) /Attendance                         | Marks: 5  |

## SUGGESTED READINGS

- ☐ David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.
- ☐ Difcore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd . Bedford row, London 1998
- ☐ Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992. Warner W.K. Oeger& Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
- ☐ Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.
- ☐ Emily R. Foster, Karyn Hartiger& Katherine A. Smith, Fitness Fun, Human Kinetics Publishers 2002.
- ☐ Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd. 37, Sohe Square, London 1999
- ☐ Robert Malt. 90 day fitness plan, D.K. publishing, Inc. 95, Madison Avenue, New York N
- ☐ Benardot, D. (2012). Advanced sports nutrition. Champaign, IL: Human Kinetics. ISBN 978145040161
- ☐ Burke, L. (2007). Practical sports nutrition. Champaign, IL: Human Kinetics ISBN. 9780736046954
- ☐ Connolly, M. (2012). Skills-based health education. Sudbury, MA: Jones & Bartlett Learning. ISBN 9781449630201
- ☐ Koelen, M., & Ban, A. (2004). Health education and health promotion. Wageningen, Netherlands: Wageningen Academic Publishers. ISBN 9789076998442

**COURSE OUTCOMES:** By the end of this course, you will be able to describe and/or demonstrate:

**CO 1-** The various published definitions of “health.”

**CO 2-** The concept of optimal health in developing a personal view of health.

**CO 3-** The history of national disease prevention and health promotion activities.

**CO 4-** Key risk factors affecting health promotion and longevity.

**MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	3		1				1	3	2	
2	2	1		2			3	1		
3		2	3			1			2	3

**MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1		
2	2	1
3	1	2

**SEMESTER III**  
**PART A – THEORY – ELECTIVE COURSE**  
**MPEC 302: PHYSICAL FITNESS AND WELLNESS**

**COURSE OBJECTIVES**

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

**COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

1. Understand the concept of holistic health through fitness and wellness
2. Explain the concept of physical fitness, health related and motor fitness
3. Evaluate primary health status
4. Prepare fitness schedules& evaluate fitness

**COURSE CONTENTS**

**UNIT I – Introduction**

Meaning and Definition" of Physical Fitness, Physical Fitness Concepts and Techniques, Principles of physical fitness, Physiological principles involved in human movement. Components of Physical Fitness. Leisure time physical activity and identify opportunities in the community to participate in this activity. Current trends in fitness and conditioning, components of total health fitness and the relationship between physical activity and lifelong wellness.

**UNIT II – Nutrition**

Nutrients; Nutrition labelling information, Food Choices, Food Guide Pyramid, Influences on food choices-social, economic, cultural, food sources, Comparison of food values. Weight Management-proper practices to maintain, lose and gain. Eating Disorders, Proper hydration, the effects of performance enhancement drugs

**UNIT III – Aerobic Exercise**

Cardio respiratory Endurance Training; proper movement forms, i.e., correct stride, arm movements, body alignment; proper warm-up, cool down, and stretching, monitoring heart rates during activity. Assessment of cardio respiratory fitness and set goals to maintain or improve fitness levels. Cardio respiratory activities including i.e. power walking, pacer test, interval training, incline running, distance running, aerobics and circuits.

**UNIT IV – Anaerobic Exercise**

Resistance Training for Muscular Strength and Endurance; principles of resistance

training, Safety techniques (spotting, proper body alignment, lifting techniques, spatial, awareness. and proper breathing techniques). Weight training principles and concepts; basic resistance exercises (including free hand exercise, free weight exercise, weight machines, exercise bands and tubing, medicine balls, fit balls) Advanced techniques of weight training

### **UNIT V – Flexibility Exercise**

Flexibility Training, Relaxation Techniques and Core Training. Safety techniques (stretching protocol; breathing and relaxation techniques) types of flexibility exercises (i.e. dynamic, static), Develop basic competency in relaxation and breathing techniques. Pilates, Yoga.

### **TEACHING LEARNING STRATEGIES:**

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

### **MODE OF TRANSACTION**

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

### **ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

<input type="checkbox"/> End Semester Exam	Marks: 75
<input type="checkbox"/> Classroom Test, Assignments, Presentations	Marks: 25
O Classroom Tests: Best one out of two unit tests	Marks: 10
O Tutorial with viva, discussions, Seminar Presentations	Marks: 10
O Assignments (Two Assignments) /Attendance	Marks: 5

### **SUGGESTED READINGS:**

- ☐ 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. Bedford row, London 1998.
- ☐ Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992.
- ☐ Warner W.K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
- ☐ Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.
- ☐ Emily R. Foster, Karyn Hartiger & Katherine A. Smith, Fitness Fun, Human Kinetics. Publishers 2002.
- ☐ Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd. 37, Sohe Square, London, 1999.
- ☐ Robert Malt. 90 day fitness plan, D.K. publishing, Inc. 95, Madison Avenue, New York.
- ☐ Hoeger, W., & Hoeger, S. Lifetime physical fitness & wellness. ISBN-13: 978-



1285733142. ISBN-10: 1285733142.

- Fahey, T., Roth, W., Insel, P., & Insel, C. Fit & well. ISBN -13: 978-0077770396. ISBN-10: 0077770390.
- Hoeger, W., & Hoeger, S. Fitness & wellness. (2013) Belmont, CA: 10: 1285733150.
- Greenberg, J., Dintiman, G., & Myers Oakes, B. (2004). Physical fitness and wellness.
- Champaign, IL: Human Kinetics. ISBN-13: 978-0736046961. ISBN-10: 073604696

### **COURSE OUTCOME students are able to**

- CO-1** Discuss research from a multidisciplinary perspective relative to current issues in physical activity and health.
- CO-2** Apply qualitative research methods to explore and critically examine a variety of curricular topics.
- CO-3** Demonstrate application of relevant research and theory to a contemporary issue in physical activity and exercise science.

### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	3		2		1			2		2
2	1		2	1			2		3	1
3		2		1		1		1		3

### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	3
2	3	2
3		

**Semester-IV**

Part A: Theoretical Course(400 Marks)							
Course Code	Title of the Papers	Credit			Internal Marks	External Marks	Total Marks
		L/T	P/I	Total			
CORE COURSE							
MPCC-401	Information & Communication Technology (ICT) in Physical Education	3	1	4	25	75	100
MPCC 402	Sports Psychology	3	1	4	25	75	100
MPCC-403	Sports Sociology	4	-	4	25	75	100
ELECTIVE COURSE (ANYONE)							
MPEC-401	Adapted Physical Education	3	1	4	25	75	100
MPEC-402	Dissertation	3	1	4	25	75	100
PART-B PRACTICAL COURSE(400 MARKS)							
MPPC-401	Games Specialization – IV 1.Track and Field: Heptathlon & Decathlon *2. Gymnastics / Swimming (*Any one)  (Performance of Any Two Events/Apparatus of each game & Five Lessons of Teaching, Coaching & Officiating of each game	1	3	4	25	75	100
MPPC-402	Sports and Games – IV Badminton/ T.T/ Tennis/ Squash/ Shooting/ Archery/ Fencing  (Any Two games Individual Skill, Game Situation, Officiating, Lead-Up games)	1	3	4	25	75	100
MPPC-403	Classroom Teaching Lessons on Theory Subjects topics of Graduation Level	1	3	4	25	75	100

	( 4 Internal & 1 External)						
<b>MPPC-404</b>	<b>Physical Fitness Test(Cooper)</b>	1	3	4	25	75	<b>100</b>
<b>Total</b>					<b>200</b>	<b>600</b>	<b>800</b>

## **DETAILED SYLLABUS**

### **SEMESTER – IV**

#### **PART – A: THEORY – CORE COURSE**

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

##### **COURSE OBJECTIVES:**

1. To impart the concepts of computer application in Physical Education and sports.
2. To develop understanding about various concepts of computer fundamentals and applying technology in teaching learning situation.

##### **COURSE LEARNING OUTCOMES:**

**After completing this course, the students will able to**

1. Correlate the of computer application in Physical Education and Sports concepts with the sports and athlete specific situations
2. Integrate the knowledge about basic statistical tools and common computer applications.
3. List down the Information Technology utilized in the field of sports.
4. Analyze the issues related to Internet, Networking, E-learning and Cyber Security.

##### **COURSE CONTENTS**

###### **UNIT I – Communication & Classroom Interaction**

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

###### **UNIT II – Fundamentals of Computers**

Characteristics, Types & Applications of Computers Hardware of Computer: Input, Output & Storage Devices Software of Computer: Concept & Types Computer Memory: Concept & Types Viruses & its Management Concept, Types & Functions of Computer Networks Internet and its Applications Web Browsers & Search Engines Legal & Ethical Issues

###### **UNIT III – MS Office Applications**

MS Word: Main Features & its Uses in Physical Education MS Excel: Main Features & its Applications in Physical Education MS Access: Creating a Database, Creating a Table, Queries, Forms & Reports on Tables and its Uses in Physical Education MS Power Point: Preparation of Slides with Multimedia Effects MS Publisher: Newsletter & Brochure

###### **UNIT IV – ICT Integration in Teaching Learning Process**

Approaches to Integrating ICT in Teaching Learning Process Project Based Learning (PBL) Co- Operative Learning Collaborative Learning ICT and Constructivism: A Pedagogical Dimension

###### **UNIT V – E-Learning & Web Based Learning**

E-Learning

**Practicum:** - Window, MS Word, Power Point, Excel, SPSS.

### LIST OF PRACTICUM

- ☐ Design various types of formats in MS Excel
- ☐ Preparation of PPT
- ☐ SPSS Packages
- ☐ E-referencing System
- ☐ Video conferencing

### TEACHING LEARNING STRATEGIES:

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

### MODE OF TRANSACTION

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

### ASSESSMENT RUBRICS

**Marks: 100 (75+25)**

- |                                                                               |           |
|-------------------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                                    | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Practical/Presentations | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                             | Marks: 10 |
| O Tutorial/Practical with viva, discussions, Seminar Presentations            | Marks: 10 |
| O Assignments (Two Assignments) /Attendance                                   | Marks: 5  |

### SUGGESTED READINGS:

- ☐ Goldin, C., & Katz, L. (2008). The race between education and technology. Cambridge, Mass.: Belknap Press of Harvard University Press.ISBN-13: 978-0674035300. ISBN-10: 0674035305.
- ☐ Castelli, D., & Fiorentino, L. (2008). Physical education technology playbook. Champaign, IL: Human Kinetics.ISBN-10: 0736060553. ISBN-13: 978-0736060554
- ☐ Leight, J. Technology for physical education teacher education.ISBN-10: 1494895765 ISBN-978-1494895761
- Felker, K. (2011). Integrating technology into physical education and health. American Press.ISBN-10: 0896414965. ISBN-13: 978-0896414969
- ☐ Mohnsen, B. (2012). Using technology in physical education.ISBN-10: 1893166899 ISBN-978-189316689.
- ☐ Selwyn, N. (2011). Education and technology. London: Continuum International Pub.Group.ISBN-10: 1441150366. ISBN-13: 978-1441150363
- ☐ Capel, S., Breckon, P., & O'Neill, J. (2006). A practical guide to teaching physical education in the secondary school. London: Routledge.ISBN-10: 0415361117. ISBN-13: 978-0415361118.

**COURSE OUTCOME students are able to**

- CO-1 Correlate the concept of computer application in Physical Education and Sports with specific situations.
- CO-2 Analyse sporting data of various types via astute use of statistical packages.
- CO-3 Practice mathematics, statistics, information technology in sport technology related problems
- CO-4 Offer Hands on Knowledge in information and communication Technology
- CO-5 Integrate the knowledge about basic statistical tools and common computer applications. And, analyse the issues related to Internet, Networking, E-learning and Cyber Security.

**MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1		3		1			2	1	2
2		2	1					1		3
3	1	3	1		1	1	2			2

**MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	3
2		
3	2	1

**SEMESTER IV****PART – A – THEORY – CORE COURSE****MPCC 402: SPORTS PSYCHOLOGY****COURSE OBJECTIVES:**

- ☐ To impart the concepts of psychology applied in the field of physical education and sports for optimal performance.
- ☐ To introduce the field of sports psychology as a scientific discipline

- ☐ To develop understanding about various concepts of goal setting, motor learning and personality with respect to sports and athlete performance.
- ☐ To review the motivational strategies applicable in the field of sports.
- ☐ To analyze the influence of group and team on behavior of athletes influencing team cohesion and social behavior

### **COURSE LEARNING OUTCOMES:**

#### **After completing this course, the students will able to**

- ☐ Correlate the psychological concepts with the sports and athlete specific situation
- ☐ Integrate the knowledge about personality, motor learning for behavior modification of athletes
- ☐ Relate different theories of motor learning with its influence on motor perception and related cognitive abilities of athletes
- ☐ List down the strategies for motivation utilized in the field of sports
- ☐ Analyze the issues related to social behavior based on physiological structure and function

### **UNIT I - Introduction**

Meaning, Definition, History, Need and Importance of Sports Psychology. Present Status of Sports Psychology in India. Motor Learning: Basic Considerations in Motor Learning – Motor Perception: Factors Affecting Perception – Perceptual Mechanism. Personality: Meaning, Definition, Structure – Measuring Personality Traits. Effects of Personality on Sports Performance.

### **UNIT II - Motivation & Mental State**

Meaning and Definition, Types of Motivation: Intrinsic, Extrinsic. Achievement Motivation: Meaning, Measuring of Achievement Motivation. Anxiety: Meaning and Definition, Nature, Causes, Method of Measuring Anxiety. Competitive Anxiety and Sports Performance. Stress: Meaning and Definition, Causes. Stress and Sports Performance. Aggression: Meaning and Definition, Method of Measurement. Aggression and Sports Performance. Self-Concept: Meaning and Definition, Method of Measurement.

### **UNIT III – Goal Setting**

Meaning and Definition, Process of Goal Setting in Physical Education and Sports. Psychological Tests: Types of Psychological Test: Instrument based tests: Pass-along test – Tachistoscope – Reaction timer – Finger dexterity board – Depth perception box – Kinesthesiometer board. Questionnaire: Sports Achievement Motivation, Sports Competition Anxiety.

### **UNIT IV – Psychological aspects of Competition:**

Defining competition, determinants of competitive behavior, psychological characteristics of pre- competition, during competition and post competition. Selected psycho regulative techniques technique for relaxation and activation. Psychological aspects of long term and short term preparation for competition, Psychological care of injuries, sports person, responses to injuries, prevention and coping techniques.

### **UNIT V – Psycho-Social Facilitation:**

Presence of others, co action effect and audience effect in sports. Factors mediating social facilitations. Volitional regulation actions in sports: Meaning, Characteristics and Factors affecting volitional regulated behavior. Development of volitional qualities

### **LIST OF PRACTICUM**

- ☐ Assessment of State and Trait Anxiety of athletes
- ☐ Assessment of Sport and Exercise Motivation
- ☐ Assessment of Personality traits among athletes
- ☐ Assessment of Group Cohesion among team and individual sports.

- ☐ Assessment of Emotion

## TEACHING LEARNING STRATEGIES

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

## MODE OF TRANSACTION

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

## ASSESSMENT RUBRICS

**Marks: 100 (75+25)**

- |                                                                              |           |
|------------------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                                   | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations          | Marks: 25 |
| <input type="radio"/> Classroom Tests: Best one out of two unit tests        | Marks: 10 |
| <input type="radio"/> Tutorial with viva, discussions, Seminar Presentations | Marks: 10 |
| <input type="radio"/> Assignments (Two Assignments) /Attendance              | Marks: 5  |

## SUGGESTED READINGS

- ☐ 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, Khel Sahitya Kendra Publishers.
- ☐ Jay Coakley. (2001) Sports in Society – Issues and Controversies in International Education, Mc-Craw Seventh Ed.
- ☐ John D Lauther (2000) Psychology of Coaching. NewJersey: Prentice Hall Inc.
- ☐ John D. Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.
- ☐ Mirosław 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 Fibiger.
- ☐ Thelma Horn. (2002). Advances in Sports Psychology. Human Kinetic.



**COURSE OUTCOME students are able to**

CO-1	Introduction about Sports Psychology
CO-2	Motor Learning
CO-3	Cognitive Process in Sports
CO-4	Motivation Goal Setting Training Program
CO-5	Psychological Factors and Performance Excellence

**MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1	1	1	1		2	2		1	
2	1		2	3	2	1	1	3		1
3		3		2	3		1		2	2

**MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	
2	3	1
3	1	2

**SEMESTER – IV**  
**PART – A: THEORY COURSE**  
**MPCC 403: SPORTS SOCIOLOGY**  
**COURSE CONTENTS**

**UNIT I- Introduction:**

Meaning, Nature, Scope and Method of Sports Sociology, Sports as a social phenomenon, Element of culture

**UNIT II- Sociological Analysis of Sports:**

Sociological description (Concepts and classification), sociological discovery (Proposition and procedures), sociological explanation (theories and paradigms)

**UNIT III- Sport Group and Sport Organization:**

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

Sports and socializing Institutions -Role of family and educational system in sport, role of socialization, socialization via games & Sport.

Regulative Institutions of Society -Interaction between sports and (a) Economic system, (b) Politics and (c) Religion.

**UNIT IV- Sport and Social Stratification:**

Extent and effect of racial and ethnic, gender, age & socioeconomic stratifications on participation and achievement in sport. Democratization in Sport

Social Dimensions of Physical Activity –Appearance, sociality competitiveness and cooperation, anxiety, audience, aspiration level.

**UNIT V- Trends and Issues concerning Sport in Society –**

Current Problems in Sports and Future Directions – Sports Social Crisis Management. Group leadership and Organization leadership- composition and structure, process and performance.

Sport and aggression, violence in sport, professional sport, women and children in sport.

**TEACHING LEARNING STRATEGIES**

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

**MODE OF TRANSACTION**

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

**ASSESSMENT RUBRICS**

**Marks: 100 (75+25)**

- |                                                                     |           |
|---------------------------------------------------------------------|-----------|
| <input type="checkbox"/> End Semester Exam                          | Marks: 75 |
| <input type="checkbox"/> Classroom Test, Assignments, Presentations | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests                   | Marks: 10 |
| O Tutorial with viva, discussions, Seminar Presentations            | Marks: 10 |

**SUGGESTED READINGS**

1. Loy and Kenyon : Sport Culture and Society.
2. Ball and Loy : Sport and Social Order.
3. Loy, Mephereson& Kenyon : Sport and Social Systems.
4. Edwards : Sociology of Sports.
5. Cratty B. J. : Social Dimensions to Physical Activity.
6. Coakley J.J. : Sport in Society.

**COURSE OUTCOME students are able to**

- CO-1 Sociology and Sports  
 CO-2 Society , Culture and Sports  
 CO-3 Socialization and Sports  
 CO-4 Social stratification and Sports  
 CO-5 Women and sports

**MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2		2			2	3	2		3
2		1	3	2	3		1	3	2	
3	1		1	1		1		1	1	1

**MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	3
2	1	
3		2

**SEMESTER IV**  
**PART – A: THEORY – ELECTIVE COURSE**  
**MPEC 401: ADAPTED PHYSICAL EDUCATION**

**COURSE OBJECTIVES:**

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

**COURSE CONTENTS**

**UNIT I- Introduction:**

Meaning, Definitions, Aims, goals & objective Need & importance of adapted Physical education Historical review of adapted Physical education

**UNIT II- Classification of Disability:**

(a) Physical disabilities (b) Mental Retardation (c) Visual Impairment (d) Hearing Impairment Their Causes, Characteristics and Functional Limitations.

**UNIT III- Adapted Physical Education Programme:**

Guiding principles for adapted physical education programme (AAPHERD Principle)  
Physical Education program for disabled of Elementary school, Middle School, High School, College & University Level.

**UNIT IV- Co-curricular Activities for disabled:**

Outdoor, Rhythm and Dance activities.

Nature of Aquatic activity programme for Disabled: Importance of aquatics for the disabled, Nature of aquatic activity programme based on types of various disabilities and Rehabilitative role and importance of aquatic activity.

**UNIT V- Rehabilitations:**

Aims and objectives of rehabilitations council of India

Meaning of functional and occupational rehabilitation.

Importance of Adapted programme in Rehabilitation and Functional Rehabilitation  
Psychological Rehabilitation - Adjust mental, Environmental and Personality Development.  
Government welfare Programme.

**Scope of Gender Studies in Sports**

- ☐ Sports and Gender, Gender Equity and Women in Sports
- ☐ Building inclusive learning friendly sports facilities, overcoming barriers for inclusion.
- ☐ Creating and sustaining inclusive practices.

- Role of teachers, parents and other community members for supporting inclusion of children with diverse needs for participation in sports.

## TEACHING LEARNING STRATEGIES

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

## MODE OF TRANSACTION

Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/

Viva/ Seminars/ Term Papers/ Assignments/ Presentations/ Self-Study etc.

## ASSESSMENT RUBRICS

**Marks: 100 (75+25)**

- |                                                          |           |
|----------------------------------------------------------|-----------|
| □ End Semester Exam                                      | Marks: 75 |
| □ Classroom Test, Assignments, Presentations             | Marks: 25 |
| O Classroom Tests: Best one out of two unit tests        | Marks: 10 |
| O Tutorial with viva, discussions, Seminar Presentations | Marks: 10 |
| O Assignments (Two Assignments) /Attendance              | Marks: 5  |

## SUGGESTED READINGS

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

- Sharma, P.L. (1990) Teachers handbook on IED-Helping children with special needs N. C. E R T Publication.
- Sharma P.L (2003) Planning Inclusive Education in Small Schools, R .I E. Mysore

### **COURSE OUTCOME students are able to**

CO-1	Sociology and Sports
CO-2	Society , Culture and Sports
CO-3	Socialization and Sports
CO-4	Social stratification and Sports
CO-5	Women and sports

### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2		2			2	3	2		3
2		1	3	2	3		1	3	2	
3	1		1	1		1		1	1	1

### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	3
2	1	
3		2

**SEMESTER – IV**  
**THEORY – ELECTIVE COURSE**  
**MPEC 402: DISSERTATION**

**COURSE OBJECTIVES:**

- ☐ To enable the students to develop skills and competencies for conducting rigorous, theoretically correct and practically relevant research in Physical Education & Sports

**COURSE LEARNING OUTCOMES:** After completing this course, the students will able to

- ☐ Develop scholarly inquiry into a problem or issues, involving a systematic approach of gathering and analysis of information/data, leading to production of a structured report.

**COURSE CONTENTS**

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

**TEACHING LEARNING STRATEGIES:**

The students shall be encouraged to discussion, use of library, seminars & presentations.

**MODE OF TRANSACTION**

Viva/ Seminars/ Term Papers/Assignments/ Presentations/Self-Study etc.

**ASSESSMENT RUBRIC:**

Components	Continuous Evaluation 40	End Semester Evaluation 60	Total marks 100
Valuation of thesis	(60%) Marks: 24	(60%) Marks: 36	Marks: 60
Viva- vice	(40%) Marks: 16	(40%) Marks: 24	Marks: 40

**References:**

- 1) Best W John and James V Leahn (1996) Research in Education, New Delhi :Prentice – Hall of India Pvt. Ltd.,
- 2) Kothari C.R. (1985) Research Methodology NewDelhi: Wiley Eastern Limited.
- 3) Clarke David.H and Clarke H, Harrison (1984) Research processes inPhysical Education, New Jersey : Prentice Hall Inc.
- 4) Best, John W. and Kalm James, V.(1980) Research in Education, New Delhi:Prentice Hall of India.

- 5) Clarke, H. Harrison and Clarke David H. (1972) Advanced Statistics, NewJercy: Prentice Hall Inc.
- 6) Garret Henry E and Woodworth,R.S ( 1958) Statistics in Psychology andEducation, Bombay : Allied publication pvt.Ltd.,
- 7) Thirumalaisamy (1998) Statistics in Physical Education, Karaikudi:Senthilkumar publishers.
- 8) Thomson AL,( 1986) The Art of Using Computers, Boyd & Frasher Boston:Publishing Co.,
- 9) Jerry R Thomas and Jack K Nelson( 2000) Research Methods in PhysicalActivities,

### **COURSE OUTCOME students are able to**

- CO-1 Fundamental Concepts
- CO-2 Methodology
- CO-3 Research Design
- CO-4 Data Collection
- CO-5 Significance of Research Writing

### **MAPPING'S OF CO'S AND PO'S**

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1		3		2		2	3			2
2		2	2		1	1		2	3	
3	1		1	3	2	2	1		1	

### **MAPPING'S OF CO'S AND PSO'S**

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	2
2	3	
3		1