



## **MGM INSTITUTE OF HEALTH SCIENCES**

(Deemed University u/s 3 of UGC Act, 1956)

**Grade 'A' Accredited by NAAC**

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### **Master of Physiotherapy Program**

#### **Specialty – Musculoskeletal Physiotherapy**

#### **Program Outcomes for Master of Physiotherapy Program**

Students who complete 2 years postgraduate program in Physiotherapy would earn a Master of Physiotherapy (MPT) specialty degree. The learning outcomes that a student should be able to demonstrate on completion of a degree level program include academic, personal, behavioral, entrepreneurial and social competencies. It is expected that a student completing a particular course must have a level of understanding of the subject and its sub-areas in consonance with the learning outcomes mentioned at the end of that course. Program learning outcomes include Physiotherapy specific skills, generic skills, transferable global skills and competencies that prepare the student for employment, higher education, research and develop them as contributing members for overall development of the society.

The program learning outcomes relating to MPT degree program Specialty –Musculoskeletal Physiotherapy, are summarized below:

PO 1	Professional ethic towards client respect, dignity and confidential responsibility.
PO 2	To practice communication skills with patient, caregiver and interdisciplinary relations.
PO 3	To identify the biopsychosocial component of pain and dysfunction.
PO 4	To have knowledge of basic sciences pertaining to musculoskeletal system with sound clinical reasoning
PO 5	To have detailed knowledge of musculoskeletal injury rehabilitation

PO 6	To understand the path mechanics of musculoskeletal injuries
PO 7	To know evidence based practice and advances in clinical reasoning
PO 8	To understand the mechanism of pain and dysfunction
PO 9	To formulate hypothesis and clinical decision-making skills to assess and manage all musculoskeletal conditions
PO10	To perform disability evaluation of patients pertinent to musculoskeletal conditions and to be able to prescribe exercises based on dosimetry.

**Program Specific Outcomes for Master of Physiotherapy Program  
Specialty –Musculoskeletal Physiotherapy**

Graduates of the Master of Physiotherapy program will be proficient in skills imbibed in the undergraduate program and in addition demonstrate skills to:

PSO 1	Critically evaluate, prioritize and apply physiotherapy approaches, paradigms and techniques and utilize appropriate, evidence-based skills, techniques and practice in managing and treating people with injury, disability or illness in a range of health care and/or rehabilitation settings.	
PSO 2	Identify, analyze and respond appropriately to ethical dilemmas and challenges, and ethical implications of patient/client presentations.	
PSO 3	Develop a reasoned rationale for clinical evidence-based physiotherapy intervention and design appropriate treatment/management plans to meet the needs of patients/clients within legislative, policy, ethical, funding and other constraint.	
PSO 4	Acquire and utilize new knowledge, research, technologies and other appropriate resources and methods to optimize, and to ensure cost-effectiveness, quality and continuous improvement of health care delivery and outcomes.	
PSO 5	Prepare students for professional practice as Physiotherapists. Graduates will be able to practice across a range of settings, including rural and remote areas. Emphasis will be placed on preparing a contemporary health professional to be client-centered and to work effectively within an interdisciplinary team.	
PSO 6	Work creatively and effectively whilst upholding professional standards and relationships with a range of stakeholders (including clients, colleagues, careers, families, employers, insurers and others whose presence impacts on the patient/client, and other treatment providers and team members) with different understandings, perspectives and priorities influencing physiotherapy practice.	
PSO 7	Adapt communication styles recognizing cultural safety, cultural and linguistic diversity	

**Course learning outcomes:** are defined within the course content that makes up the program. The courses are structured such that learning is vertically and horizontally integrated into the curriculum. The CBCS curriculum offers a certain degree of flexibility in taking courses. Course learning is aligned to the program learning outcomes and graduate attributes. The MPT program is inclusive of 4 semesters inclusive of 12 core courses, ( 35 Credits), 6 ability enhancement compulsory courses (AECC- 14 credits), 6 ability enhancement elective courses (AEEC – 6 credits) and 3 discipline specific skill electives (SEC – 4 credits) and 2 generic electives (GEC – 2 credits). Clinical training (CLT) is included in each semester ( 22 credits). Research project will be submitted as a mandatory requirement for award of Master’s degree (7 credits). Evaluation of the courses vary as appropriate to the subject area, inclusive of formative and summative assessment, ongoing comprehensive assessment in the form of closed and open book tests, objectively structured practical examination OSPE , objectively structured clinical examination OSCE, problem based assignments, practical assignments, observation of practical skills, project reports, case reports, viva, seminars, essays, and others.

### **Semester I**

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Musculoskeletal Anatomy</b>
<b>Course Code</b>	<b>MPT036</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>100 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Develop an in depth knowledge of musculoskeletal system to help assess and manage musculoskeletal impairments.
CO 2	Ability to predict and prevent secondary impairments and/or pathologies across systems.
CO 3	Ability to diagnose the “root cause” of impairments in musculoskeletal conditions

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Clinical Biomechanics</b>
<b>Course Code</b>	<b>MPT037</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>100 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Advocate the role of understanding applied mechanics as an essential skill for Physiotherapist
CO 2	Understand and apply the applications of movement dysfunction into therapeutic exercise prescription
CO 3	Ability to predict and prevent secondary impairments and/or pathologies across systems.
CO 4	Ability to diagnose the “root cause” of biomechanical impairments and activity limitations

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Exercise Physiology</b>
<b>Course Code</b>	<b>MPT038</b>
<b>Credit per Semester</b>	<b>1 credits</b>
<b>Hours per Semester</b>	<b>20 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Advocate the role of different metabolic pathways during exercises
CO 2	Understand difference between aerobic and anaerobic pathways with different types of exercises.
CO 3	Understand the process of recovery from exercise

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Cardiopulmonary Resuscitation</b>
<b>Course Code</b>	<b>MPTAECC-001</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>60 hours</b>

<b>Course Outcomes Student should be able to</b>	
CO 1	To describe the importance of high quality CPR and its impact on survival
CO 2	To Describe all steps of chain of survival
CO 3	To apply BLS concepts of chain of survival
CO 4	To Recognize signs of someone needing CPR
CO 5	To Perform high quality CPR for an adult/ child/ infant
CO6	To Describe the importance of early use of Automated external defibrillator (AED)
CO7	To demonstrate appropriate use of an AED
CO8	To Provide effective ventilations by using a barrier device
CO9	To describe the importance of teams in multi- rescuer resuscitation
CO10	Describe techniques of relief of foreign-body airway obstruction for an adult/child/infant

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Research methods</b>
<b>Course Code</b>	<b>MPTAECC002</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>40 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	understand basic concept of research, design, problems & sampling techniques of research.
CO 2	gain knowledge of various types of study designs and planning for the same
CO 3	plan for a research study
CO 4	understand various methods of quantitative and qualitative data analyses
CO 5	describe the terminology in research, ethical issues and research process.
CO 6	describe important sources, and steps in reviewing of literature.
CO 7	understand sampling technique, research process, data collection, biostatics, correlation and statistical significance tests.
CO 8	identify and to be able to participate in or conduct descriptive, explorative, survey studies in physical therapy practice with statistics.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Bioethics, Health management and Administration</b>
<b>Course Code</b>	<b>MPTAECC-003</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>60 hours</b>

<b>Course Outcomes</b>	
CO 1	To describe the nature, meaning and principals of bioethics.
CO 2	To describe human dignity and human rights.
CO 3	To describe the benefit and harm of patient's right & dignity in Health care settings.
CO 4	To understand the role of constitutions and functions of W.H.O. and W.C.P.T and IAP.
CO 5	To be able to understand regarding management and administration, budget planning, leadership and teamwork.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Teaching Technology</b>
<b>Course Code</b>	<b>MPTAECC-004</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>80 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Describe the philosophies of education.
CO 2	Describe the role of education philosophies.
CO 3	Describe recent new trends and issues regarding education.
CO 4	Understand the concepts of teaching and learning with curriculum formation.
CO 5	Describe methods of teaching, and conduct educational seminars and microteachings using new trends in education.

### **Semester II**

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Musculoskeletal Diagnosis (Upper Quadrant including Cervical Spine)</b>
<b>Course Code</b>	<b>MPT039</b>
<b>Credit per Semester</b>	<b>3credits</b>
<b>Hours per Semester</b>	<b>100 hours</b>

<b>Course Outcomes</b>	
CO 1	To perform a comprehensive and complete Physiotherapy assessment of various musculoskeletal conditions affecting upper quadrant and cervical spine.
CO 2	To screen out Red and Yellow flags in patients.
CO 3	To document systematic, meaningful, accurate written records of the patient.
CO 4	To formulate hypothesis based on history and confirm the diagnosis from clinical examination and formulate tissue specific diagnosis.
CO 5	To corelate clinical findings with radiological findings.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Musculoskeletal Physiotherapy ( Upper Quadrant &amp; Cervical Spine)</b>
<b>Course Code</b>	<b>MPT040</b>
<b>Credit per Semester</b>	<b>3credits</b>
<b>Hours per Semester</b>	<b>100 hours</b>

<b>Course Outcomes</b>	
CO 1	To formulate treatment strategies for management of musculoskeletal impairments of upper quadrant and cervical spine.
CO 2	To develop customized treatment protocol pertinent to the condition
CO 3	To develop Hands-on skills in management of various conditions of upper quadrant and cervical spine.
CO 4	To understand and critique evidence based practice and be updated about the recent trends/advances in management of various conditions of upper quadrant and cervical spine.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Clinical Reasoning in Musculoskeletal Physiotherapy</b>
<b>Course Code</b>	<b>MPT041</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>40 hours</b>

<b>Course Outcomes</b>	
CO 1	Outline contemporary biopsychosocial approaches for management of musculoskeletal disorders.
CO 2	Formulate differential diagnoses of musculoskeletal disorders and evaluate the most likely diagnosis.
CO 3	Rationalize and prioritize treatment selections for effective management of musculoskeletal disorders
CO 4	Demonstrate successful integration of current evidence when applying safe and effective musculoskeletal physiotherapy

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty – Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Legal issues and Professional ethics</b>
<b>Course Code</b>	<b>MPTAECC010</b>
<b>Credit per Semester</b>	<b>2 credits</b>



<b>Hours per Semester</b>	<b>40 hours</b>
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<b>Course Outcomes</b>	
CO 1	To provide the basis for participation in clinical risk management, risk management and patient safety committees and for further training as a risk / patient safety
CO 2	To ensure improvement of patient safety and care, to the prevention and management of legal claims and to healthcare delivery in general
CO 3	To understand the professional ethics and responsibility as a therapist.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty - Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Medical Device Innovation</b>
<b>Course Code</b>	<b>MPTGEC-001</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>40 hours</b>

<b>Course Outcomes Students will be able to</b>	
CO 1	Understand phases of device innovation
CO 2	Understand unmet health needs, inventing and evaluating a new technology
CO 3	Understand risks and challenges that are unique to medical device innovation

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Scientific Writing</b>
<b>Course Code</b>	<b>MPTGEC-002</b>
<b>Credits per semester</b>	<b>2 credits</b>
<b>Hours per semester</b>	<b>40 hours</b>

<b>Course Outcomes Students will be able to</b>	
CO 1	Understand scientific writing process, components of a research paper
CO 2	Methods of literature search
CO 3	Attain skills of organizing and composing a scientific paper
CO4	Analyze and review scientific papers
CO5	comprehend ethics of scientific writing
CO6	understand the editorial process for publication

<b>Name of the Programme</b>	<b>Master of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Kinescoping</b>
<b>Course Code</b>	<b>MPTSEC-004</b>
<b>Credits per semester</b>	<b>2 credits</b>
<b>Hours per semester</b>	<b>60 hours</b>

<b>Course Outcomes Students will be able to</b>	
CO 1	Understand rationale for use of kinescoping as a clinical adjunct in practice
CO 2	Review muscular anatomy as it is related to Kinesio Taping
CO 3	Attain skills of assessing the need for kinescoping in clinical practice
CO4	Apply the corrective and therapeutic techniques of kinescoping in musculoskeletal conditions.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Pilates</b>
<b>Course Code</b>	<b>MPTSEC-005</b>
<b>Credits per semester</b>	<b>2 credits</b>
<b>Hours per semester</b>	<b>60 hours</b>

<b>Course Outcomes Students will be able to</b>	
CO 1	Understand rationale for use of Pilates for core muscle conditioning in clinical practice
CO 2	Prepare personal workout session using Pilates
CO 3	Attain skills of assessing the core muscle work in clinical practice
CO4	Apply the corrective and therapeutic Pilates conditioning exercises

### Semester III

<b>Name of the Programme</b>	<b>Master of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Musculoskeletal Diagnosis (Lower Quadrant including Lumbosacral Spine)</b>
<b>Course Code</b>	<b>MPT042</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>100 hours</b>

<b>Course Outcomes</b>	
CO 1	To perform a comprehensive and complete Physiotherapy assessment of various musculoskeletal conditions affecting lower quadrant and lumbar spine.
CO 2	To screen out Red and Yellow flags in patients.
CO 3	To document systematic, meaningful, and accurate written records of the patient.
CO 4	To formulate hypothesis based on history and confirm the diagnosis from clinical examination and formulate tissue specific diagnosis.
CO 5	To correlate clinical findings with radiological findings.

<b>Name of the Programme</b>	<b>Master of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Musculoskeletal Physiotherapy ( Lower Quadrant &amp; Lumbar Spine)</b>
<b>Course Code</b>	<b>MPT043</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>100 hours</b>

<b>Course Outcomes</b>	
CO 1	To formulate treatment strategies for management of musculoskeletal impairments of Lower quadrant and Lumbo-sacral spine.
CO 2	To develop customized treatment protocol pertinent to the condition
CO 3	To develop Hands-on skills in management of various conditions of Lower quadrant and Lumbo-sacral spine.
CO 4	To understand and critique evidence based practice and be updated about the recent trends/advances in management of various conditions of Lower quadrant and Lumbo-sacral spine.

<b>Name of the Programme</b>	<b>Master of Physiotherapy (MPT) Specialty – Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Disability and Rehabilitation</b>
<b>Course Code</b>	<b>MPT044</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>40 hours</b>

<b>Course Learning Outcomes Student should be able to</b>	
CO 1	Define Disability holistically and understand the various components of disability.
CO 2	Define Rehabilitation and apply the concept of rehabilitation to various forms of disabilities.
CO 3	Understand the importance and contribution of each team member in the rehabilitation of a disability- Medical social worker, Nurse, Occupational therapist, Speech therapist, Lawyer, etc.
CO 4	Understand the legal aspects of Disability.

<b>Name of the Programme</b>	<b>Master of Physiotherapy (MPT) Specialty – Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Geriatric Physiotherapy</b>
<b>Course Code</b>	<b>MPT045</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>40 hours</b>

<b>Course Learning Outcomes Student should be able to</b>	
CO 1	Understand the Physiology and systemic changes of aging.
CO 2	Understand the various physical and psychological impairments associated with aging.
CO 3	Understand role of Physiotherapy in Geriatric Population
CO 4	Design customized Exercise program for Geriatric population.

<b>Name of the Programme</b>	<b>Master of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Body and Mind techniques</b>
<b>Course Code</b>	<b>MPTAEEC001</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>60 hours</b>

<b>Course Learning Outcomes</b> <b>Student should be able to</b>	
CO 1	Apply physical principles of various strengthening techniques like Pilates, resistant band, vestibular ball and relaxation exercises like Jacobson, Mitchell. Biofeedback, PNF.
CO 2	Analyze effects, advantages disadvantages of various strengthening and relaxation techniques.
CO 3	Apply and evaluate breathing movements for relaxation techniques and positions for strengthening different muscle groups.
CO 4	Design treatment programs using equipment like bands, tubes, mats, reformer, vestibular ball, and biofeedback.
CO5	Describe safety precautions while using various techniques and equipment
CO6	Describe and apply techniques used for recruitment of various muscle groups while strengthening and relaxation for respiratory, neurological, orthopedic conditions and for fitness training

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT)</b> <b>Specialty – Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Exercise Psychology</b>
<b>Course Code</b>	<b>MPTAEEC-002</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>60 hours</b>

<b>Course Outcomes</b> <b>At the end of the course , the candidate will be able to</b>	
CO 1	Discuss psychological aspects concerned with promotion of physical activity and exercise; psychological and emotional benefits linked with physical activity, exercise and sport and consequences of lack of exercise on behavior, inter personal skills and mental well-being, and discuss how psychological factors that influence exercise behavior.
CO 2	Describe factors influencing and serving as barriers to sustaining positive health behavior - self-esteem, depression, body image, anxiety, motivation, social support, and perceived control influence exercise behavior.
CO 3	Apply methods to encourage positive health behavior, importance of understanding psychology of a person in designing sustainable programs to initiate and maintain positive health behavior
CO 4	Discuss benefits of physical activity and exercise on mental health and well being
CO 5	Discuss psychological factors influencing high skill performance and sports engagement
CO6	Apply methods that can be used for psychological skills training

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Women’s Health</b>
<b>Course Code</b>	<b>MPTAEEC005</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>60 hours</b>

<b>Course Outcomes</b>	
CO 1	Develop an in depth knowledge of anatomy and physiology of female reproductive system to help assess and manage impairments related to women’s health.
CO 3	Ability to predict and prevent secondary impairments and/or pathologies across systems.
CO 4	Ability to design rehabilitation protocol and implement the same for improvement of impairments pertaining to women’s health.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty – Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Application of Yoga in Physiotherapy</b>
<b>Course Code</b>	<b>MPTSEC003</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>60 hours</b>

<b>Course Learning Outcomes Student should be able to</b>	
CO 1	Describe origin of Yoga & its brief development and apply principles of Yoga for patient care in musculoskeletal, neurological and cardio-respiratory disorders
CO 2	Demonstrate effective communication skills for understanding effect of yoga on health condition
CO 3	Describe types of Yoga- Hatha Yoga , Raja Yoga, Laya Yoga, Bhakti Yoga, Gyan Yoga, Karma Yoga, compare and contrast differences in philosophies, plan appropriate program for patient care
CO 4	Demonstrate and apply pranayama, techniques for patients (Anulom-vilom, Bhastrika, Bhrumri, Nadishuddhi, Kapalbharti, Omkar, Suryabhedana) , analyze difference between Pranayama and deep breathing and its implications, explain meaning of meditation and its types and principles.
CO 5	Demonstrate different types of asana, principles, effects . limitations to performing asanas, biomechanical implications of asanas and recommend modifications that can be used by patients

CO 6	Conduct basic yoga session for patients with musculoskeletal, neurological and cardio-respiratory disorders
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### Semester IV

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty - Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Pain Sciences</b>
<b>Course Code</b>	<b>MPT046</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>80 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Recognize and describe the mechanistic descriptors for the clinical classification of pain
CO 2	Characterize the central nervous system pathways that modulate nociceptive transmission and appraise how these systems may contribute to pain
CO 3	Discuss the complex changes that can occur in motor function in association with pain and describe how a plan of care would be individualized to address unhelpful movement behaviors (e.g., fear-avoidance)
CO 4	Use valid and reliable tools for measuring pain and associated symptoms to assess and reassess related outcomes as appropriate for the clinical context and population.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Physiotherapy in Family and Community health</b>
<b>Course Code</b>	<b>MPT047</b>
<b>Credit per Semester</b>	<b>3 credits</b>
<b>Hours per Semester</b>	<b>100 hours</b>

<b>Course Outcomes</b>	
CO 1	Understand the scope of Physiotherapy in community rehabilitation.
CO 2	Integrate Physiotherapy in Primary health care.
CO 3	Understand professional issues for Physiotherapists in family centered and community based settings.

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty - Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Exercise Prescription</b>
<b>Course Code</b>	<b>MPT048</b>
<b>Credit per Semester</b>	<b>2 credits</b>
<b>Hours per Semester</b>	<b>40 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Demonstrate the ability to obtain appropriate medical history, informed consent, and other pertinent information prior to exercise prescription.
CO 2	Demonstrate the ability to instruct the patients in the use of equipment and exercise procedures.
CO 3	Evaluate, design, and implement customized and group exercise programs based on history and fitness level of patients.
CO 4	Demonstrate the use of frequency, intensity, time and type of exercise in designing a protocol for patients.
CO 5	Demonstrate an understanding for components incorporated into an exercise session and their proper sequence

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Sports for Fitness</b>
<b>Course Code</b>	<b>MPTAEEC006</b>
<b>Credits per semester</b>	<b>2 credits</b>
<b>Hours per semester</b>	<b>60 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Apply the concepts of exercise physiology and training methods to different population.
CO 2	Understand the training methodology for improving sports performance in particular domain of sports
CO 3	Select specific characteristics of sports potential and design an appropriate training plan

<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Sports for Fitness</b>



<b>Course Code</b>	<b>MPTAEEC007</b>
<b>Credits per semester</b>	<b>2 credits</b>
<b>Hours per semester</b>	<b>60 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Apply the concepts of exercise physiology and training methods to different population.
CO 2	Understand the training methodology for improving sports performance in particular domain of sports
CO 3	Select specific characteristics of sports potential and design an appropriate training plan

<b>Ability Enhancement Compulsory Course</b>	
<b>Name of the Programme</b>	<b>Master Of Physiotherapy (MPT) Specialty –Musculoskeletal Physiotherapy</b>
<b>Name of the Course</b>	<b>Intellectual property rights and publication ethics</b>
<b>Course Code</b>	<b>MPTAEEC005</b>
<b>Credits per semester</b>	<b>2 credit</b>
<b>Hours per semester</b>	<b>40 hours</b>

<b>Course Outcomes</b>	
<b>Student will be able to</b>	
CO 1	Describe types of intellectual property, copyrights, patent, laws and rights based on intellectual property,
CO 2	Apply ethics of publication in journals, different methods of misconduct carried out during

  
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