

**Department of Physiotherapy  
Teerthanker Mahaveer University**

**MPT (Master of Physiotherapy)**

**Programme Specific Outcome**

<b>PSO-1</b>	:	Remembering, retrieving and integrating the information on Musculoskeletal conditions, Neurological disabilities, Cardiorespiratory dysfunctions, sports injuries and other general conditions
<b>PSO-2</b>	:	Understanding the professional ethics, functioning of hospital and other clinical setups, use it effectively in clinical practice to become an efficient worker, administrator and manager.
<b>PSO-3</b>	:	Applying advanced concepts of physiotherapeutics, electrophysiology and biomechanics to build expertise in area-specific clinical intervention techniques and patient assessment.
<b>PSO-4</b>	:	Demonstrating responsibility towards community health rehabilitation and communicate effectively with patients, caretakers, other healthcare professionals and students using important soft skills and clinical reasoning.
<b>PSO-5</b>	:	Discovering the relevant physiotherapy research arenas and uphold Evidence Based Practice for further research and clinical work.
<b>PSO-6</b>	:	Developing critical and analytical thinking to effectively assess and provisionally diagnose the patient and apply skills of advanced physiotherapy procedure and techniques.

**Course Outcomes**

<b>MPT110</b>	<b>CO-1</b>	Understanding the concepts, terms, approaches and methods of data collection in health care related research.
	<b>CO-2</b>	Applying appropriate design, sampling techniques and statistical tools in health care related research.
	<b>CO-3</b>	Analyzing research data, interpreting and utilizing findings with use of descriptive and inferential statistics to predict results in health care related research.
	<b>CO-4</b>	Evaluating various methods and tools of data collection. CO5. Preparing the research project.
<b>MPT111</b>	<b>CO-1</b>	Understanding the principles and concepts of exercise physiology and exercise prescription.
	<b>CO-2</b>	Applying the concepts of physiology of movement, exercise and training, environmental influence, energy consumption & expenditure, diet & nutrition, fatigue and special aids.
	<b>CO-3</b>	Analyzing the energy expenditure in different situations.
	<b>CO-4</b>	Creating exercise prescription for different groups.
<b>MPT112</b>	<b>CO-1</b>	Applying the concepts of Anatomy and Physiology of Action potential, Electrical properties of muscles and nerves.
	<b>CO-2</b>	Utilizing and analyzing clinical Electrophysiological testing, muscle

		plasticity in response to electrical stimulation and assessing the effect on body systems.
	<b>CO-3</b>	Analyzing the functions, characteristics and components of Electrotherapeutic stimulation system and electrophysiological assessment devices.
	<b>CO-4</b>	Inspecting the concepts of the advanced therapeutic modalities
<b>MPT161</b>	<b>CO-1</b>	Analyzing the various clinical conditions, investigations, physical examination, diagnosis and differential diagnosis.
	<b>CO-2</b>	Creating the Evidence Based treatment plan.
	<b>CO-3</b>	Justifying the assessment tools and treatment techniques selected.
<b>TMUPS101</b>	<b>CO-1</b>	Utilizing effective verbal and non-verbal communication techniques in formal and informal settings
	<b>CO-2</b>	Understanding and analyzing self and devising a strategy for self growth and development.
	<b>CO-3</b>	Adapting a positive mindset conducive for growth through optimism and constructive thinking.
	<b>CO-4</b>	Utilizing time in the most effective manner and avoiding procrastination.
	<b>CO-5</b>	Making appropriate and responsible decisions through various techniques like SWOT, Simulation and Decision Tree.
	<b>CO-6</b>	Formulating strategies of avoiding time wasters and preparing to-do list to manage priorities and achieve SMART goals.
<b>MPT162</b>	<b>CO-1</b>	Explaining the current trends in research and methodology
	<b>CO-2</b>	Understanding the language, methods, context, and analysis that can be used to generate further research.
	<b>CO-3</b>	Analyzing the research paper and critique it. CO4. Creating research problems effectively.
<b>MPT210</b>	<b>CO-1</b>	Recalling and applying the principles of biomechanics
	<b>CO-2</b>	Understanding and applying the knowledge of advanced biomechanics of tissues and structures of musculoskeletal system, posture and gait
	<b>CO-3</b>	Describing and using the tools for biomechanical analysis
	<b>CO-4</b>	Employing the concepts of ergonomics, patient positioning, body mechanics and transfer techniques
<b>MPT211</b>	<b>CO-1</b>	Understanding and utilizing the principles of Biophysical measurements, physical fitness assessment, special tests, scales and electro-diagnostic tools used in common disorders.
	<b>CO-2</b>	Applying the principles of patient assessment, clinical examination, pathological investigations, imaging techniques for common disorders
	<b>CO-3</b>	Examining the patient for pain through interview, body charts and clinical assessment.
	<b>CO-4</b>	Analyzing physical disability, its diagnosis, supporting and adaptive functional devices.
<b>MPT212</b>	<b>CO-1</b>	Recalling and applying principles of various types of exercises and electrotherapy techniques, their prescription and effects of medications and exercises on human body.
	<b>CO-2</b>	Applying the theories of motor control, motor learning, aging and ergonomic aspects of exercise.
	<b>CO-3</b>	Applying principles of advanced physiotherapy techniques and yogic

		practice.
	<b>CO-4</b>	Analyzing physiotherapy management in general conditions.
<b>TMUPS102</b>	<b>CO-1</b>	Communicating effectively in a variety of public and interpersonal settings.
	<b>CO-2</b>	Applying concepts of change management for growth and development by understanding inertia of change and mastering the Laws of Change.
	<b>CO-3</b>	Analyzing scenarios, synthesizing alternatives and thinking critically to negotiate, resolve conflicts and develop cordial interpersonal relationships.
	<b>CO-4</b>	Functioning in a team and enabling other people to act while encouraging growth and creating mutual respect and trust.
	<b>CO-5</b>	Handling difficult situations with grace, style, and professionalism.
<b>MPT261</b>	<b>CO-1</b>	Analyzing the various clinical conditions, investigations, physical examination, diagnosis and differential diagnosis.
	<b>CO-2</b>	Creating the Evidence Based treatment plan.
	<b>CO-3</b>	Justifying the assessment tools and treatment techniques selected.
<b>MPT262</b>	<b>CO-1</b>	Explaining the current trends in research and methodology
	<b>CO-2</b>	Understanding the language, methods, context, and analysis that can be used to generate further research.
	<b>CO-3</b>	Analyzing the research paper and critique it. CO4. Creating research problems effectively.
<b>MPT314</b>	<b>CO-1</b>	Understanding and applying the principles of ethics, laws, educational objectives, curriculum planning, concepts of teaching- learning and evaluation methods.
	<b>CO-2</b>	Understanding and applying the concepts of quality control in relation to physiotherapy care and service and principles of guidance and counselling.
<b>MPT315</b>	<b>CO-1</b>	Recalling and applying the anatomy, physiology, clinical conditions, evaluation, diagnosis, treatment tools, techniques and management of cardiovascular and respiratory system.
	<b>CO-2</b>	Evaluating general and ventilator dependent patient by cardiorespiratory assessment, preoperative evaluation, diagnostic test and laboratory investigations for cardiorespiratory diseases and surgeries.
	<b>CO-3</b>	Analyzing and creating the various treatment plans for a patient based on recent research advances and Evidence Based Practices.
<b>MPT365</b>	<b>CO-1</b>	Applying the cardiorespiratory assessment tool on various patient population and perform assessment of Ventilated patients and weaning
	<b>CO-2</b>	Analyzing the patient's cardiovascular and respiratory status by integrating findings from various clinical & lab tests for ICU and Ventilated patients.
<b>MPT316</b>	<b>CO-1</b>	Recalling neuroanatomy and neurophysiology.
	<b>CO-2</b>	Applying the principles of application of different methods of electrodiagnosis, radiology and interpret them in neurological conditions.
	<b>CO-3</b>	Applying the neurophysiology of balance, co-ordination, locomotion, normal sequential behavioral and physiological changes of the development arc.
	<b>CO-4</b>	Analyzing the concepts of clinical conditions, neurological assessment,

		various outcome measures, Autonomic dysfunction assessment and pediatric assessment and diagnosis in the physiotherapy management based on Evidence Based Practice for neurological disorders.
<b>MPT366</b>	<b>CO-1</b>	Analyzing various clinical, electro-diagnostic and radiographic tests performed for neurological conditions.
	<b>CO-2</b>	Utilizing post- surgical physiotherapy management of various palliative and reconstructive surgeries performed in neurological conditions.
<b>MPT317</b>	<b>CO-1</b>	Understanding musculoskeletal system and its applied anatomy.
	<b>CO-2</b>	Analyzing musculoskeletal conditions, patient assessment, rationale of laboratory investigations, role of radiology and complete management of musculoskeletal disorders
	<b>CO-3</b>	Evaluating disability, orthopaedic implants, functional activities and gait.
	<b>CO-4</b>	Creating an Evidence Based management program for the musculoskeletal conditions
<b>MPT367</b>	<b>CO-1</b>	Analyzing the patient for assessment, differential diagnosis, diagnosis, patient education, lab and radiographic tests.
	<b>CO-2</b>	Analyzing and creating an Evidence Based rehabilitation program for the musculoskeletal conditions
<b>MPT318</b>	<b>CO-1</b>	Understanding and applying the critical assessment and management methodologies for various sports.
	<b>CO-2</b>	Analysing the various biomechanical considerations of sports specific injuries, clinical sports medicine, disorders and pathologies.
	<b>CO-3</b>	Analyzing the core concepts of the recent advances in research and Evidence Based Practice to create a prescription for management.
<b>MPT368</b>	<b>CO-1</b>	Applying the principles of Kinanthropometry for sports specific demands and competencies
	<b>CO-2</b>	Applying various techniques of bandaging and cryotherapy measures specific to the injury patterns
	<b>CO-3</b>	Analyzing and creating an Evidence based prescription suitable for the sportsperson based on clinical reasoning and decision making.
<b>MPT361</b>	<b>CO-1</b>	Analyzing the various clinical conditions, investigations, physical examination, diagnosis and differential diagnosis.
	<b>CO-2</b>	Creating the Evidence Based treatment plan.
	<b>CO-3</b>	Justifying the assessment tools and treatment techniques selected.
<b>MPT362</b>	<b>CO-1</b>	Explaining the current trends in research and methodology
	<b>CO-2</b>	Understanding the language, methods, context, and analysis that can be used to generate further research.
	<b>CO-3</b>	Analyzing the research paper and critique it. CO4. Creating research problems effectively.
<b>MPT410</b>	<b>CO-1</b>	Understanding principles of management process, general administration and hospital administration.
	<b>CO-2</b>	Applying the concepts of personnel management, marketing and total quality management, quantitative methods and relevance of statistical techniques in management.
	<b>CO-3</b>	Applying the concepts & principles of hospital administration and entrepreneurship skills.
	<b>CO-4</b>	Analyzing Physiotherapy Profession and Staff Roles in rural and Urban

		areas
<b>MPT415</b>	<b>CO-1</b>	Understanding and applying the special techniques of cardio respiratory rehabilitation for various populations and conditions.
	<b>CO-2</b>	Analyzing the recent evidences for creating cardio respiratory rehabilitation of various clinical conditions.
	<b>CO-3</b>	Applying and analyzing patient cardio respiratory assessment and tools in ICU and in/outpatient department for various techniques of management and community based rehabilitation.
	<b>CO-4</b>	Justifying the selection and use of appropriate assessment tool and management technique
<b>MPT465</b>	<b>CO-1</b>	Applying the treatment strategies for cardio respiratory patient in ICU and otherwise.
	<b>CO-2</b>	Applying the various tools and techniques for intubated, ventilated and hospitalized patient.
	<b>CO-3</b>	Creating the intervention plan and goals for emergency handling of the patient.
	<b>CO-4</b>	Justifying the selection and use of appropriate assessment tool and management technique.
<b>MPT416</b>	<b>CO-1</b>	Understanding the use of drugs, community based rehabilitation, geriatric rehabilitation.
	<b>CO-2</b>	Applying the theories of motor control and learning, principles of neuroplasticity.
	<b>CO-3</b>	Analyzing the clinical condition, diagnosis, investigations, disability evaluation, testing and training of assistive devices in the various neurological disorders and tonal abnormalities.
	<b>CO-4</b>	Analyzing and creating Evidence Based prescription and use of various techniques in neurological conditions.
	<b>CO-5</b>	Justifying the selection and use of appropriate assessment tool and management technique.
<b>MPT466</b>	<b>CO-1</b>	Analyzing the patient based on the principles for neurological assessment and various clinical tests.
	<b>CO-2</b>	Analyzing and creating an Evidence Based prescription using various neurological approaches for the management of neurological conditions.
	<b>CO-3</b>	Creating the prescription of appropriate orthotic and prosthetic devices for management of neurological dysfunctions.
	<b>CO-4</b>	Justifying the selection and use of appropriate assessment tool and management technique.
<b>MPT417</b>	<b>CO-1</b>	Understanding and applying the concepts of functional assessment and rehabilitation of hand function, gait, posture, activities of daily living, occupational work.
	<b>CO-2</b>	Explaining the concepts and principles of various advanced therapeutic techniques and exercises.
	<b>CO-3</b>	Applying the concepts of Rehabilitation of hand, locomotor disorders, Community based rehabilitation and use of external aids in musculoskeletal disorders.
	<b>CO-4</b>	Creating an evidence based rehabilitation plan of care.
	<b>CO-5</b>	Justifying the selection and use of appropriate assessment tool and

		management technique.
<b>MPT467</b>	<b>CO-1</b>	Applying and analyzing musculoskeletal assessment tools and clinical tests.
	<b>CO-2</b>	Applying and analyzing assessment and manipulative techniques on patient groups.
	<b>CO-3</b>	Creating a physiotherapy prescription based on the rehabilitation techniques for musculoskeletal dysfunctions and for post-surgical management.
	<b>CO-4</b>	Justifying the selection and use of appropriate assessment tool and management technique
<b>MPT418</b>	<b>CO-1</b>	Understanding biomechanical analysis in sports, sports nutrition, medico legal issues, disability screening and various schools of manual therapy.
	<b>CO-2</b>	Applying sports assessment, exercise prescription, rehabilitation protocols for athletes and special groups.
	<b>CO-3</b>	Analyzing principles of injury prevention, common on-field and off-field injuries, athlete psychology and appropriate intervention specific to regional involvement.
	<b>CO-4</b>	Analyzing and creating prescription based on the advancements in sports disorders and appropriate clinical reasoning.
	<b>CO-5</b>	Justifying the selection and use of appropriate assessment tool and management technique
<b>MPT468</b>	<b>CO-1</b>	Applying the principles of pre-participation evaluation, fitness testing and clearance.
	<b>CO-2</b>	Utilizing performance enhancing strategies on athletic groups.
	<b>CO-3</b>	Analyzing and testing various components of fitness.
	<b>CO-4</b>	Practicing the advanced therapeutic approaches to promote fitness and lessen injuries in athletes.
	<b>CO-5</b>	Justifying the selection and use of appropriate assessment tool and management technique.
<b>MPT461</b>	<b>CO-1</b>	Identifying the research problem.
	<b>CO-2</b>	Applying the appropriate research methodology and statistical analysis.
	<b>CO-3</b>	Analyzing the various clinical conditions, investigations, physical examination, diagnosis and differential diagnosis.
	<b>CO-4</b>	Creating the Evidence Based treatment plan.
<b>MPT462</b>	<b>CO-1</b>	Explaining the current trends in research and methodology
	<b>CO-2</b>	Understanding the language, methods, context, and analysis that can be used to generate further research.
	<b>CO-3</b>	Analyzing the research paper and critique it.
	<b>CO-4</b>	Creating research problems effectively