



(U/S 2(f) and 12B of the UGC Act 1956, NAAC Accredited)

## DESH BHAGAT UNIVERSITY, MANDI GOBINDGARH

### Master of Physiotherapy M.P.T-1<sup>st</sup> year

#### PROGRAM OUTCOMES (POs)

**PO1:** Recognize the role of Physiotherapy in the context of the health needs of the community and National priorities in the health sector.

**PO2:** Demonstrate professional and ethical behavior appropriate to at least the minimum standard expected for a Physiotherapy Post Graduate.

**PO3:** To acquire knowledge and skills in various fields like Exercise testing physiology, Movement analysis, Electro diagnosis, Physiotherapy Diagnosis.

**PO4:** Using an Evidence Based analysis interpret assessment findings and set realistic short and long term goals and undertake discharge plans.

**PO5:** To apply general principles of Practice and understand their applications in enhancement of Physiotherapy Practice.

**PO6:** To understand various physiotherapy treatment models like physiotherapy and rehabilitation model.

**PO7:** To understand the clinical manifestations and to apply the suitable management models in various electives.

**PO8:** To appreciate the importance of clinical epidemiology, research ethics and advance in computer applications and formulate research process in physiotherapy.

**PO9:** Experiment with new approaches, challenges, existing knowledge, boundaries and design novel solution to various critical problems through logical, analytical and critical thinking.

**PO10:** Able to practice recent trends in investigative methods and intervention modalities in the field of physiotherapy.

**Course Code:** MPTR-100 (Common for all specializations)

**Title of the Course:** Computers, Research methodology and Biostatistics

L	T	P	C
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4	0	0	4
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**Course Outcomes (COs)**

**CO1:** Understand some basic concepts of research and its methodologies

**CO2:** Propose the required numerical skills necessary to carry out research.

**CO3:** Organize and conduct research (advanced project) in a more appropriate manner.

**(Specialization-Orthopedics)**

**Course Code:** MPTO-101

**Title of the Course:** Review of Orthopedic Basic Sciences

L	T	P	C
4	0	0	4

**Course Outcomes (COs)**

**CO1:** The student will be able to identify & describe anatomical aspects of bones, tendons and ligaments as it relates to injury.

**CO2:** Application of knowledge of musculoskeletal system on functional impairment based on ICF model.

**CO3:** To understand the Anatomical basis of various musculoskeletal conditions.

**CO4:** To identify and interpret general characteristics, material properties, appropriate constitutive model, and adaptation potential for tissue.

**Course Code:** MPTO-102

**Title of the Course:** Review of Orthopedic Therapeutic Exercises

L	T	P	C
4	0	0	4

**Course Outcomes (COs)**

**CO1:** Understand clarification of movement, muscle work related to exercise therapy.

**CO2:** Analyze the various types of therapeutic exercises, movements and demonstrate different techniques and describe their effects.

**CO3:** Identify various types of electrodes used in therapeutics and significance of various media used in reducing skin resistance.

**CO4:** To know about theoretical and practical knowledge of message techniques.

**Course Code:** MPTO-103

**Title of the Course:** Current concepts in Orthopedic Physiotherapy Conditions

L	T	P	C
8	0	0	8

**Course Outcomes (COs)**

**CO1:** Understand different types of clinical-reasoning strategies used during physical therapy management of individuals with musculoskeletal conditions.

**CO2:** Conduct a thorough history/interview and perform a physical examination using evidence-based tests and measures for a variety of musculoskeletal conditions.

**CO3:** Interpret the results of a musculoskeletal examination to develop an optimal plan of care.

**CO4:** Detect red and yellow flags and understand their clinical implications.

### **M.P.T-1<sup>st</sup> year (Neurology)**

**Course Code:** MPTN-101

**Title of the Course:** Review of Neuro Basic Sciences

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO1:** The student will be able to identify & describe anatomical aspects of cranium, spinalcord as it relates to injury.

**CO2:** Application of knowledge of neurological system on functional impairment based onICF model.

**CO3:** To understand the Anatomical basis of various neurological conditions.

**CO4:** To identify and interpret general characteristics, material properties, appropriateconstitutive model, and adaptation potential for tissue.

**Course Code:** MPTN-102

**Title of the Course:** Review of Neuro Therapeutic Sciences

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO1:** Understand clarification of movement, muscle work related to exercise therapy.

**CO2:** Analyse the various types of therapeutic exercises, movements and demonstrate different techniques and describe their effects.

**CO3:** Identify various types of electrodes used in therapeutics anal significance of various media used in reducing skin resistance.

**CO4:** To know about theoretical and practical knowledge of message techniques.

**Course Code:** MPTN-103

**Title of the Course:** Current concepts in Neuro Physiotherapy conditions

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
8	0	0	8

**Course Outcomes (COs)**

**CO1:** Understand different types of clinical-reasoning strategies used during physical therapy management of individuals with musculoskeletal conditions.

**CO2:** Conduct a thorough history/interview and perform a physical examination using evidence-based tests and measures for a variety of neurological conditions.

**CO3:** Interpret the results of a neurological examination to develop an optimal plan of care.

**CO4:** Detect red and yellow flags and understand their clinical implications.

### **M.P.T-1<sup>st</sup> year (Cardiopulmonary)**

**Course Code:** MPTC-101

**Title of the Course:** Review of Cardiopulmonary Basic Sciences

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

### **Course Outcomes (COs)**

**CO1:** The student will be able to identify & describe anatomical aspects of cranium, spinal cord as it relates to injury.

**CO2:** Application of knowledge of cardiopulmonary system on functional impairment based on ICF model

**CO3:** To understand the Anatomical basis of various Cardiopulmonary conditions.

**CO4:** To identify and interpret general characteristics, material properties, appropriate constitutive model, and adaptation potential for tissue.

**Course Code:** MPTC-102

**Title of the Course:** Review of Cardiopulmonary Therapeutic Sciences

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

### **Course Outcomes (COs)**

**CO1:** Understand clarification of movement, muscle work related to exercise therapy.

**CO2:** Analyze the various types of therapeutic exercises, movements and demonstrate different techniques and describe their effects.

**CO3:** Identify various types of electrodes used in therapeutics and significance of various media used in reducing skin resistance.

**CO4:** To know about theoretical and practical knowledge of message techniques.

**Course Code:** MPTC-103

**Title of the Course:** Current concepts in Cardiopulmonary Physiotherapy conditions

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
8	0	0	8

### **Course Outcomes (COs)**

**CO1:** Understand different types of clinical-reasoning strategies used during physical therapy management of individuals with cardiopulmonary conditions.

**CO2:** Conduct a thorough history/interview and perform a physical examination using evidence-based tests and measures for a variety of cardiopulmonary conditions.

**CO3:** Interpret the results of a cardiopulmonary examination to develop an optimal plan of care.

**CO4:** Detect red and yellow flags and understand their clinical implications.

## **M.P.T-1<sup>st</sup> year (Sports)**

**Course Code:** MPTS-101

**Title of the Course:** Review of Sports Basic Sciences

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

### **Course Outcomes (COs)**

**CO1:** The student will be able to identify & describe anatomical aspects of bones, tendons and ligaments as it relates to injury.

**CO2:** Application of knowledge of musculoskeletal system on functional impairment based on ICF model.

**CO3:** To understand the Anatomical basis of various musculoskeletal conditions.

**CO4:** To identify and interpret general characteristics, material properties, appropriate constitutive model, and adaptation potential for tissue.

**Course Code:** MPTS-102

**Title of the Course:** Review of Sports Therapeutic Exercises

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

### **Course Outcomes (COs)**

**CO1:** Understand clarification of movement, muscle work related to exercise therapy.

**CO2:** Analyse the various types of therapeutic exercises, movements and demonstrate different techniques and describe their effects.

**CO3:** Identify various types of electrodes used in therapeutics and significance of various media used in reducing skin resistance.

**CO4:** To know about theoretical and practical knowledge of message techniques.

**Course Code:** MPTS-103

**Title of the Course:** Current concepts in Sports Physiotherapy Conditions

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
8	0	0	8

### **Course Outcomes (COs)**

**CO1:** Understand different types of clinical-reasoning strategies used during physical therapy management of individuals with musculoskeletal conditions.

**CO2:** Conduct a thorough history/interview and perform a physical examination using evidence-based tests and measures for a variety of musculoskeletal conditions.

**CO3:** Interpret the results of a musculoskeletal examination to develop an optimal plan of care.

**CO4:** Detect red and yellow flags and understand their clinical implications.

**M.P.T-2nd year**  
**Elective Subjects (Common for all Specializations)**

**Course Code:** MPTG-207

**Title of the Course:** Guidance and Counselling

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
3	0	0	3

**Course Outcomes (COs):**

**CO1:** Explain the importance of school guidance services in terms of contemporary educational process.

**CO2:** Explain the legal regulations and the applications related to the existing guidance services in schools.

**CO3:** Implement the plans and applications needed for effective school guidance services.

**Course Code:** MPTH-207

**Title of the Course:** Hospital Management and Planning

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
3	0	0	3

**Course Outcomes (COs)**

**CO1:** To provide an environment that enables students to benefit and learn nuances of Hospital Management from their collective learning experiences.

**CO2:** To offer opportunities to develop the ability to think analytically and build capacity for independent learning.

**CO3:** To develop capabilities to complete a challenging extended piece of independent study in a learning environment where project work choices are supported by faculty research.

**(Common for all Specializations)**

**Course Code:** MPTM-200

**Title of the Course:** Management and educational Methodology in Physiotherapy

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs)**

**CO1:** To describe the neuro-physiological changes associated with exercise/ training.

**CO2:** To describe the role of central and peripheral nervous systems for an efficient human movement.

**CO3:** To differentiate between skills of varying nature and contextualize based on population being exercised.

**CO4:** To be able to prepare basic program for learners of different skill sets.

**Course Code:** MPTE-201

**Title of the Course:** Basics of exercise physiology and nutrition.

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
4	0	0	4

**Course Outcomes (COs):**

**CO1:** To impart knowledge regarding importance of nutrition and exercise for physical, psychological, social and spiritual fitness of an individual.

**CO2:** To impart and develop intellectual as well as physical skills among the students in the planning and execution of exercise and nutritional principles for fitness management.

**CO3:** To understand the importance of alternative therapies in the overall fitness of an individual.

**CO4:** To enable the students develop entrepreneurial abilities in the field of fitness.

### **M.P.T-2nd year (Orthopedics)**

**Course Code:** MPTO-204

**Title of the Course:** Physical Therapy in Orthopedic Conditions

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
8	0	0	8

#### **Course Outcomes (COs)**

**CO1:-** To formulate treatment strategies for management of musculoskeletal impairments of upper quadrant and cervical spine.

**CO2:-** To develop customized treatment protocol pertinent to the condition.

**CO3:-** To develop Hands-on skills in management of various conditions of upper quadrant and cervical spine.

**CO4:-** To understand and critique evidence base.

**Course Code:** MPTO-205

**Title of the Course:** Spinal Disorders and hand Rehabilitation

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
6	0	0	6

#### **Course Outcomes (COs)**

**CO1:** Rationalize various approaches for hand rehabilitation based on etiology of disease and to progress with rehabilitation.

**CO2:** Provide adequate preoperative, post-operative and follow-up care of surgical and other hand conditions.

**CO3:** The ability to perform appropriate assessment and implement treatment plan based on the assessment.

**CO4:** Advanced clinical knowledge, skills and attitudes necessary for the competent assessment, prophylaxis, treatment and rehabilitation of patients with hand injuries and related disorders.

### **M.P.T-2nd year (Neurology)**

**Course Code:** MPTN-204

**Title of the Course:** Physical Therapy in Neurological and Pediatric Disorders

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
8	0	0	8

#### **Course Outcomes (COs);**

**CO1:** Demonstrate professional behavior and respectful communication with participants in

al educational activities.

**CO2:** Self-assess knowledge, skills, behaviors and attitudes during learning sessions.

**CO3:-** Demonstrate professional and academic integrity.

**CO4:-** Demonstrate team work for group activities.

**Course Code:** MPTN-205

**Title of the Course:** Physical therapy in Neurosurgical Rehabilitation

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
6	0	0	6

**Course Outcomes (COs):**

**CO1:** Participate in both informal and formal peer assessments.

**CO2:** Incorporate Patient Safety Competencies in all relevant learning activities.

**CO3:** Analyze the case issues relative to the components of the Conceptual Framework. This analysis should incorporate relevant clinical lab data as well as accessing key online drug resources for clients with multisystem presentations.

**CO4:** Incorporate relevant community resources as part of the discharge planning discussion.

### **M.P.T-2nd year (Cardiopulmonary)**

**Course Code:** MPTC-204

**Title of the Course:** Physical therapy in cardio- pulmonary medical conditions.

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
8	0	0	8

**Course Outcomes (COs):**

**CO1:** Identify different areas of the body likely to be affected by cardiovascular diseases.

**CO2:** locate information on the internet, and understand and interpret data on disease occurrence.

**CO3:** Recognise the importance of historical and geographical factors in the changing profile of cardiovascular disease incidence worldwide.

**CO4:** Identify and list a number of risk factors that contribute to the development of cardiovascular diseases.

**Course Code:** MPTC-205

**Title of the Course:** Physical Therapy in Intensive Care Unit

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
6	0	0	6

**Course Outcomes (COs)**

**CO1:** Demonstrate knowledge of the pathophysiological nature of disorders resulting in critical illness.

**CO2:** Integrate advanced and integrated theoretical and clinical knowledge required for the assessment and management of the complex critically ill patient.

**CO3:** Demonstrate a systems approach to the assessment, monitoring and support of physiological function in the critically ill patient.

**CO4:** Integrates care which is patient centred and embraces cultural diversity, individuality and experience.

## M.P.T-2nd year (Sports)

**Course Code:** MPTS-204

**Title of the Course:** Physical therapy in sports conditions and Athletic Injuries

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
8	0	0	8

**Course Outcomes (COs)**

**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.

**Course Code:** MPTS-205

**Title of the Course:** Sports psychology and applied exercise physiology

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
6	0	0	6

**Course Outcomes (COs)**

**CO1:** To describe the biomechanical assessment of different sports.

**CO2:** To interpret biomechanical information related to technical fault as a risk factor for sportsinjury.

**CO 3:** To be able to discuss and interpret mechanical faults in sports techniques towards injuryprevention.

**CO4:** To Visualize and communicate sports performance to coaches.