

Department of Physiotherapy
Era University, Lucknow
Course Outline
Effective From: 2025-26

Name of the Program	MPT		Year/ Semester:	2nd year/3rd Sem
Course Name	EVIDENCE BASED PRACTICE	Course Code:	MPT 301	Type:
Credits	03		Total Sessions Hours:	45 Hours
Evaluation Spread	Internal Continuous Assessment	30 Marks		End Term Exam:
Type of Course	Compulsory	• Core	Creative	Life Skills
Course Objectives	1. Incorporate evidence based practice into clinical decisions of patient care and Management.			
Course Outcomes (CO): <i>After the successful course completion, learners will develop following attributes:</i>				
CO1	Define evidence based practice & gain confidence in making clinical decisions on diagnosis and treatment.			
CO2	Make complex decision from heuristic decision.			
CO3	Make decisions based on prescriptive, descriptive and artificially added approach & categorize the subjects and objects of knowledge.			
CO4	Differentiate between screening and diagnosis & understand the importance of history taking and physical examination			
CO5	Identify and appreciate ethical principles in physiotherapy.			
Pedagogy	Interactive, discussion-bases, student-centered, presentation.			
Internal Evaluation Mode	<ol style="list-style-type: none"> 1. Attendance: 2. Project/Assignment 3. Class Participation 4. Presentations 5. Bedside Behavior 6. Written Exam: 			
Session Details	Topic		Hours	Mapped CO
UNIT 1	Evidence based Practice <ol style="list-style-type: none"> a. Introduction to Evidence Based Practice: Definitions, Evidence Based Practice, b. Concepts of Evidence based Physiotherapy: Awareness, Consultation, Judgement, and Creativity c. Development of Evidence based knowledge, The Individual Professional, Professionals within a discipline, and Professionals across disciplines d. Evidence Based Practitioner: The Reflective Practitioner, The E Model, Using the E Model 		15	CO1

UNIT 2	<p>Finding the Evidence 10 hours</p> <p>a. Measuring outcomes in Evidence Based Practice, Measuring Health Outcomes, Measuring clinical outcomes, Inferential statistics and Causation Searching for the Evidence: Asking Questions, Identifying different sources of evidence, Electronic Bibliographic databases and World Wide Web, Conducting a literature search. Step by-step search for evidence</p> <p>b. Assessing the Evidence: Evaluating the evidence; Levels of evidence in research using quantitative methods, Levels of evidence classification system, Outcome Measurement, Biostatistics, The critical review of research using qualitative methods Systematically reviewing the evidence: Stages of systematic reviews, Meta-analysis, The Cochrane collaboration</p> <p>c. Economic evaluation of the evidence: Types of economic evaluation, conducting economic evaluation, critically reviewing economic evaluation, locating economic evaluation in the literature.</p>	15	CO2 CO5							
UNIT 3	<p>Using the Evidence 10 hours</p> <p>a. Building evidence in practice; Critically Appraised Topics (CATs), CAT format, Using CATs, Drawbacks of CATs Practice guidelines, algorithms, and clinical pathways: Recent trends in health care, Clinical Practice Guidelines (CPG), Algorithms, Clinical pathways, Legal implications in clinical pathways and CPG, Comparison of CPGs, Algorithms and Clinical Pathways</p> <p>b. Communicating evidence to clients, managers and funders: Effectively communicating evidence, Evidence based communication in the face of uncertainty; Evidence based communication opportunities in everyday practice Research dissemination and transfer of knowledge: Models of research transfer, Concrete research transfer strategies, Evidence based policy</p>	15	CO5 CO2 CO4 CO3							
CO-PO and PSO Mapping										
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1	-	1	-	-	1	-	-	-	-
CO2	1	-	2	3	1	1	-	-	-	1
CO3	1	-	1	-	-	1	-	-	-	-
CO4	1	-	1	2	-	1	-	-	-	2
CO5	1	-	1	2	2	1	-	-	-	1
<i>Strong contribution-3, Average contribution-2, Lowcontribution-1.</i>										
Suggested Readings:										
Text- Books	<ol style="list-style-type: none"> 1. Practical Evidence-Based Physiotherapy, Herbert Robert BAppSc, MAppSc, PhD, Elsevier - Health Sciences Division 2. Handbook of Evidence-Based Practice in Indian Physiotherapy Profession, Naveen Kumar 									
Reference Books	<ol style="list-style-type: none"> 1. Practical Evidence-Based Physiotherapy, Churchill Livingstone; 2nd edition 									
Para Text	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=sP4SSwwzH48&list=PLPkuW1Ggsq_OHU5dOBeEdazZiYvTCWtZR • https://www.youtube.com/watch?v=hd6LZRD4Jck 									

Recapitulation & Examination Pattern		
Internal Continuous Assessment:		
Component	Marks	Pattern
Mid Semester	12	As per University Pattern
Class Test	04	
Class Presentation/Discipline	04	
Assignment/ Project	04	
Bedside Behavior	02	
Attendance	04	As per Policy
Total Marks	30	

Master of Physiotherapy

Era University, Lucknow

Course Outline

Effective

From: 2024-25

Name of the Program	Master of Physiotherapy(Neurosciences)		Year/Semester:	II year/IIIrd	
Course Name	NEURO PHYSIOTHERAPEUTICS - I	Course Code:	MPT 302N/ MPP 302N	Type:	Theory & Practical
Credits	04+01		Total Sessions Hours:	60+20 Hours	
Evaluation Spread	Internal Continuous Assessment:		30 Marks	End Term Exam:	70Marks
Type of Course	Compulsory	✓ Core	Creative	Life Skill	
Course Objectives	<ul style="list-style-type: none"> To expand the advance scope of learning in Advance Physiotherapeutic in the various Neuromuscular Science and advance application on therapeutic strategies with decision making in professional practice 				
Course Outcomes (CO): After successful completion of the course, the student will be able to-					
CO1	<ul style="list-style-type: none"> Explain the scope and significance of advanced therapeutic techniques in neurological rehabilitation. Apply clinical reasoning to select appropriate therapeutic strategies for neurological conditions. 				
CO2	<ul style="list-style-type: none"> Describe the stages of motor program formation and learning progression in therapeutic settings. Integrate theoretical knowledge to enhance motor recovery strategies in clinical practice. 				
CO3	<ul style="list-style-type: none"> Apply the Bobath approach to solve clinical problems and improve functional outcomes in patients with neurological impairments. Utilize Neurodevelopment Techniques (NDT) based on principles of holistic rehabilitation and motor programming. Employ Proprioceptive Neuromuscular Facilitation (PNF) techniques for stretching and strengthening using diagonal movement patterns. 				
Pedagogy	Interactive, discussion-based, student-centered, presentation.				
Internal Evaluation Mode	Mid-term Examination: 30 Marks Class test: 12 Marks Class participation or any other : 04 Marks Assignments/Project: 04 Marks Attendance: 04 Marks Class Presentation: 04 Bed Side behavior or Interaction in Class: 02				
Session Details	Topic		Hours	Mapped CO	
Unit1	INTRODUCTION TO ADVANCE THERAPEUTIC IN NEUROMUSCULAR SCIENCE: Overview of Advanced therapeutics in Neurological Rehabilitation.Hands on skills, clinical reasoning and outcome / evidence based practice		20	CO1	

Unit 2	EMPHASIZING ON THEORIES OF MOTOR LEARNING, RELEARNING AND MOTOR CONTROL <ol style="list-style-type: none"> 1. Motor learning theories: Reflex theory, Hierarchical theory, Motor program, System theories, Ecological, Reflex basedneural facilitation approach 2. Motor control theories: Schmidt's schema, Ecological, Theories related to stages of learning motor skills, Motorprogram formation stages. 3. Factors of MRP, Effectiveness of MRP, Sections of MRP, Equipment used and qualityof rehabilitation of MRP. 	20	CO2
Unit3	NEUROREHABILITATION APPROCHES <ol style="list-style-type: none"> 1. Sensory Integration Approach, Vestibular activities, Tactile based activities, ProprioceptiveCoordination activities, Visual motor activities, Oral motor activities, Auditory activities, Olfactory activities. 2. Bobath Approach Problem solving approach, Clinical application, Effects on bobath approach. 3. Neuro Developmental Technique Principle and Effectiveness of NDT, Holistic approach, Generalized motorprogram, Central pattern generators. 4. Proprioceptive Neuromuscular Facilitation Diagonal pattern, PNF Stretching, PNF Strengthening. 5. Rood's approach Principles, Sequence of motor development, Ontogenic motor pattern, Facilitation technique, Inhibiting technique. 	20	CO3
Practical	<ul style="list-style-type: none"> • Reflex and Hierarchical Theory Demonstration • Practice progressive motor learning stages using task-specific training. • Hands-on training with MRP strategies • Sensory Integration Techniques • Hands-on training with Bobath Approach. • Demonstrate NDT principles to facilitate functional movement. • Practice diagonal movement pattern &PNF stretching and resistance exercises. • Hands-on training with Rood's techniques 	20 hours	

CO-PO and PSOMapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	2	3	3	3	3	3	2	-	-	-	-	-	-
CO2	3	2	2	2	2	3	2	3	-	-	-	-	-	-
CO3	2	2	3	2	3	2	2	2	-	-	-	-	-	-
CO4														
CO5														
CO6														

Strongcontribution-3, Averagecontribution-2, Lowcontribution-1,

Suggested Readings:

Reference Books	<ol style="list-style-type: none"> 1. Neurological Rehabilitation: by Darcy Umphered, Elsevier Health Sciences. 2. Stroke Rehabilitation: Guidelines for exercise and training to optimize motor skill By Janet Carr and R. Shepherd (Elsevier,2003) 3. Muscles, Nerves, and Movement: Kinesiology in daily living by Barbara Tydesle, John wiley and sons Limited
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	<p>4. Management of peripheral nerve problems by George E.Omer, Allen Lvan Beek, Elsevier Health Sciences 2nd Edition</p> <p>5. Early diagnosis and therapy in cerebral palsy: by AlferedL. Scherzer, Ingrid Tscharnuter, M.Dekker.</p> <p>a. Neurological Rehabilitation, Optimizing motor performance by Janet Carr and R. Shepherd (Butterworth and Heinemann Ltd</p>
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ParaText	<p>1. https://youtu.be/oZGFrwogx14?si=HtY2RZCbc9d1yIJ</p> <p>2. https://youtu.be/1R7ps4CK-iw?si=6aZateWN2Ikdr k</p> <p>3. https://youtu.be/3CYuZHwBOrk?si=PhFALcNVStOwZnqi</p> <p>4. https://youtu.be/BM0P-iLSlbs?si=ZDETNav94QJ-8wI6</p> <p>5. https://youtu.be/wkDiOCIX_xA?si=oefGWjiT78UrIO7W</p> <p>6. https://youtu.be/3ou46UyvAvw?si=z3OXvYXgoEaptBUM</p>
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Recapitulation&ExaminationPattern

InternalContinuousAssessment:

Component	Marks	Pattern
Class test	12	Contains 01 long question . question carries 04Marks . 02 Short questions . Each question carries 02Marks 04 multiple choice questions . Each question carries 01Marks
Class participation or any other	04	This to be made on activities and instruction given by subject teacher.
Marks Assignments/Project:	04	Assignment to be made on topics and instruction given by subject teacher
Class Presentation:	04	This to be made on topics and instruction given by subject teacher
Bed Side behavior or Interaction in Class	02	This to be made on activities and instruction given by subject teacher.
Attendance	04	As per policy
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