



DEPARTMENT OF PHYSIOTHERAPY

Ph.D. COURSE WORK SYLLABUS (2020-21)

PAPER-II: PHYSIOTHERAPY (PT 701)

Academics: Doctoral (Ph.D.) Programme

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S.NO.	TITLE	Hours
UNIT-I: MUSCULOSKLELTAL & SPORTS		
1.	Assessment & Advances in functional diagnostic procedures of musculoskeletal dysfunctions of the upper & lower quadrant for eg: Special test.	15
2.	PT Management of Fractures of Upper and Lower Extremity.	
3.	Evidence Based Application of Thrust Manual Therapy Techniques used in Physiotherapy:	
4.	Evidence Based Application of Non-thrust Manual Therapy Techniques used in Physiotherapy	
5.	Evidence Based PT Assessment & Management of Orthopedic Diseases.	
6.	Evidence Based PT Assessment & Management of common Sports Conditions	
UNIT-II: NEUROLOGY & NEUROPHYSIOTHERAPY		
1.	Motor Control, Motor Learning, Plasticity & Neurotherapeutic Skills.	15
2.	Evidence Based PT Management of CNS dysfunctions: Stroke (Hemiplegia), Cerebellar dysfunction (Sensory & motor Ataxia), Parkinson's Disease etc.	
3.	Evidence Based PT Management of PNS dysfunctions (traumatic & non traumatic), Peripheral Nerve Lesions, GBS (Poly-neuropathy) etc.	
4.	Evidence Based PT Management of Spinal Cord dysfunctions (Traumatic & Non traumatic), Spinal Cord Lesions, Syringomyelia etc.	
5.	Evidence Based PT Management of Acquired brain injury; trauma and pathology (Space Occupying Lesion etc.	
6.	Evidence Based PT Management of Paediatric Congenital and Acquired Conditions: Cerebral Palsy Spina Bifida, Hydrocephalus, Down's Syndrome , Spinal Muscular Atrophy, DMD etc.	
UNIT-III: CARDIO-PULMONARY		
1.	Evidence Based PT management of Cardio-vascular diseases: Ischemic Heart Disease, Myocardial Infarction, Congenital Heart Disease, Valvular Heart Disease - Congenital & Acquired,	10
2.	Evidence Based PT management of post Cardiac Surgeries	
3.	Evidence Based PT management of Respiratory Diseases: Obstructive & Restrictive Airways Disease.	
4.	Evidence Based PT management of Pulmonary Surgeries.	
5.	Chest Physiotherapy techniques: Breathing Exercises, Spirometry, ACBT, Autogenic Drainage, Postural Drainage, Chest Mobility Exercises, Coughing and Huffing technique, Forced expiratory techniques, Suctioning techniques Relaxation & Positioning technique, Respiratory PNF techniques, Use of Therapeutic Respiratory PEP devices, Endotracheal Suctioning, Nasopharyngeal, Modified Postural drainage. Intermittent positive pressure breathing techniques	
6.	Oxygen Therapy & Oxygen delivery Devices: Introduction to Oxygen therapy, its Effects, Use, Indications and Contraindications of Oxygen therapy Oxygen delivery devices (Nasal prangs, Facial mask, Venturi mask) Concentrators, hyperbaric oxygen therapy.	



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UNIT-IV: CBR, WOMENS HEALTH, GERIATRICS & BIOENGINEERING		
1.	Health Promotion & CBR: W.H.O definition of health and disease, Health delivery system, Disaster Management, International classification of functioning (ICF).	10
2.	Women's Health: Physiotherapeutic interventions in Gynecologic and Obstetric conditions, common surgical procedures in Gynecologic and Obstetric conditions, physical fitness in women etc.	
3.	Gerontology (Geriatrics): Evidence Based Physiotherapy assessment & management of geriatric conditions: Neurological, Musculoskeletal, Cardiovascular, Respiratory, Metabolic), physiotherapy management in Common surgical procedures in geriatric etc.	
4.	The Palliative care approach to care for the chronically ill and frail elderly.	
5.	Industrial health: Assessment of Industrial workers (workplace based assessment, Ergonomic etc.), physiotherapeutic intervention in Industrial health, ergonomic Advised, role of PT in industrial disaster management etc.	
6.	Principles of Bioengineering: Classification of Aids & appliances, biomechanical principles of Appliances, temporary splints including Cock up [dorsal/volar, outrigger], opponence splint, foot drop splint, facial splint, mallet Finger Splint, C bar for 1st web space of hand, Anterior and posterior guard splints for gait training, prosthesis, orthosis etc.	
UNIT-V: PHYSICAL FITNESS & LIFE STYLE MODIFICATION		
1.	Evidence based update on Physical fitness.	10
2.	Evidence based assessment & Intervention on Physical Activity Modification & Promotion.	
3.	Evidence based assessment & Management of Obesity, Overweight & weight Control.	
4.	Evidence based advice/ modification of physiotherapy intervention.	
5.	Evidence based promotional research on physical fitness & life style modification.	

REFERANCE BOOKS:

1. David J Magee Orthopedic physical assessment
2. Positional Release technique- Leon Chaitou
3. Neurodynamics mobilization technique- Buttler.
4. Muscle Energy techniques- Leon Chaitou
5. S. Brent brotzman. Kevin e Wilk clinical orthopaedic rehabilitation
6. Kessler, Management of common musculoskeletal disorders.
7. Saunder's Mannual for Neurologic Practice. Randolf Evans, Elsevier
8. Physical Therapy For Children By Suzann K. Campbell
9. Neurological rehabilitation by Darcy a. Umphred
10. A Motor Relearning Programme for Stroke. J Carr. R Shepherd
11. Motor Control and Learning. A Behavioral Emphasis. R A Schmidt
12. Physiotherapy for Respiratory and Cardiac Problems - by Jennifer A. Pryor, S. Ammani
13. Advances in Cardiopulmonary Rehabilitation: by Jobin, Jean
14. Advancing the Frontiers of Cardiopulmonary Rehabilitation; by Jobin, Jean
15. Women's Health: A Textbook for Physiotherapists by Ruth Saps ford, Joanne Bullock Axton and Sue Markwell Bphty.