

Subject Title:	PHYSIOTHERAPY IN ORTHOPEDICS CONDITIONS
Subject Code:	1PT1010401
Year:	Final Year
Pre-requisite Subject	- NONE -

Objectives of Course:

At the end of the course the candidate will be able to:

1. Identify, discuss and analyze the musculoskeletal dysfunction in terms of biomechanical, kinesiological and biophysical basis and correlate the same with the provisional diagnosis, routine radiological and electro physiological investigations and arrive at appropriate physical and functional diagnosis with clinical reasoning.
2. Describe as well as acquire the skill of executing short and long term physiotherapy treatment by selecting appropriate modes of mobilization/ manipulation, electrotherapy, therapeutic exercise and appropriate ergonomic advice for the relief of pain, restoration / maintenance of function & / or rehabilitation for maximum functional independence in ADLs at home & workplace.
3. Understand the nature of sports injuries, able to evaluate and treat sports injuries, understand the role of physiotherapist in training and rehabilitating a sports person.
4. Prescribe appropriate walking aids, orthoses and prosthesis.

SYLLABUS: -

- Anatomy of bones and soft tissues (musculoskeletal system)
- Evaluation, interpretation of investigations & functional diagnosis (ICF) with appropriate clinical reasoning for planning & implementation of management techniques
- Planning, Prescription & Implementation of short term & long term goals with clinical reasoning Documentation.
- Different physiotherapeutic techniques for functional restoration/ maintenance and prevention of disability.
- Different electro therapeutic techniques for relief of acute and chronic pain, swelling, wound healing, re-education with clinical reasoning.
- Different physiotherapeutic techniques to improve/maintain muscle performance.
- Different physiotherapeutic techniques to increase joint mobility.
- Different physiotherapeutic strategies for correction / maintenance of good posture.
- Different physiotherapeutic strategies to improve efficiency and safety of gait pattern.
- Prescription of appropriate orthotic & prosthetic devices & fabrication of simple temporary splints.
- Appropriate Home Program & Ergonomic advice for preventive measures & Functional efficiency at home & work place.

Teaching Scheme (Hours)			Evaluation Scheme (Marks)					
Lecture	Practical	Total	Theory(T)		Practical(P)		Total Marks	
			University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	Theory	Practical
60	60	120	80	20	80	20	100	100

Subject Contents			
Sr. No.	Topic	Total Hours	Weight (%)
1	Physiotherapy approach in traumatology Definition of fracture, classification of fracture, signs and symptoms of fracture, healing process of fracture, factors affecting healing, methods of reduction, complications of fracture		
2	Physiotherapy assessment in fracture cases Principles of PT management in fractures - Guidelines for fracture treatment during period of immobilization and guidelines for treatment after immobilization period Physiotherapy assessment and management of upper limb fractures and dislocations, lower limb fractures and dislocations including pelvis and spinal fractures		
3	Physiotherapy assessment & management of soft tissue injury Contusion, sprains, strains, ruptures		
4	Physiotherapy assessment & management of degenerative conditions Osteoarthritis (OA) with emphasize on Knee, Hip and Hand cervical spondylosis, lumbar spondylosis		
5	Physiotherapy assessment & management of inflammatory conditions Rheumatoid arthritis (RA), ankylosing spondylitis (AS), Still's disease gout, peri arthritis, bursitis, synovitis, capsulitis, tendinitis, tenosynovitis, fasciitis, Osgood Schlatter disease		
6	Physiotherapy assessment and management of infective Conditions Tuberculosis (TB) of spine and other major joints, osteomyelitis, pyogenic arthritis, septic arthritis		
7	Physiotherapy assessment & management of congenital and acquired Deformities Congenital - CTEV, CDH, Torticollis, pes planus, pes cavus, Sprengel's scapula, Madelung's deformity Acquired: scoliosis, kyphosis, coxa vara, genu varum, valgum and recurvatum, wry neck		
8	Physiotherapy assessment & management of spinal conditions Spondylolisthesis, Spinal canal stenosis, Spondylolysis, Intervertebral disc prolapse, Sacro-iliac joint dysfunction, Coccydynia, Sacralisation, Lumbarisation, Spina bifida occulta		
9	Physiotherapy assessment & management of amputations Definition, indications, types, levels of amputation of lower and upper extremities, pre and post-operative assessment and management with emphasize on stump care and bandaging, pre and post prosthetic training and complete rehabilitation		
10	Rehabilitation of patient with orthopedic surgery Pre and post-operative management of arthroplasty of all major joints, girdle stone arthroplasty, arthrodesis, arthroscopy, osteotomy, Reattachment of limb		
11	Physiotherapy assessment & management of re-constructive surgery Cerebral Palsy, poliomyelitis, leprosy		

12	Physiotherapy assessment & management of hand injury		
13	Physiotherapy assessment & management of metabolic and hormonal disorders of the bone tissue Osteoporosis, rickets, osteomalacia.		
14	Physiotherapy assessment & management of miscellaneous orthopedic conditions Mallet finger, trigger finger, De quervain's disease, metatarsalgia, hallux valgus, Depuytren's contracture, thoracic outlet syndrome, chondromalacia patellae, ganglion, tennis elbow, plantar fasciitis		
15	Sports Medicine 1. Introduction & classification of sports injury 2. Aetiological factors 3. Prevention of sports injury 4. Frequency and site of injury 5. Investigation and assessment in sports injury		
16	Management of sports injuries Pharmacology in sports Rehabilitation in sports		