

Ph.D in Physiotherapy

Syllabus (Entrance)

Unit I: Gross anatomy and functional anatomy: Cardiovascular system, respiratory system, central and peripheral nervous system, musculoskeletal system.

Unit II: Physiology and applied physiology of: Cardiorespiratory system, central and peripheral nervous system, special senses, muscles and blood.

Unit III: Physical agents: Low frequency currents – types of low frequency currents used for therapeutic purposes including electrodiagnostics, Medium frequency currents, High frequency Modalities - ultrasound, wax bath, infrared radiations, ultraviolet radiations, shortwave diathermy, microwave diathermy, LASER, cryotherapy.

Unit IV: Therapeutic exercises and massage: Basics of mechanics of human body, types of movements, muscle grading, types of strengthening exercises, exercises for joint mobility, suspension therapy, hydrotherapy, crutch walking, types of massage manipulations including physiological effects and limitations.

Unit V: Biomechanics and pathomechanics of: Spine, TM joint, upper extremity, lower extremity, posture, gait, respiration.

Unit VI: Physiotherapy in neurological conditions: Principles of assessment and treatment for motor system, sensory system, higher mental functions, perception in central nervous system pathologies, peripheral nervous system pathologies and myopathies. Concepts: motor relearning program, bobath approach, brunstrom approach, proprioceptive neuromuscular facilitation, roods approach and neurodevelopmental therapy.

Unit VII: Physiotherapy in orthopaedic conditions: Principles of assessment and treatment in fractures, soft tissue injuries, post operative conditions including joint replacements, joint and spinal pathologies. Concepts: Cyriax, Mackenzie and Maitland

Unit VIII: Physiotherapy in cardiopulmonary conditions: Principles of assessment and treatment in cardiac rehabilitation and pulmonary rehabilitation, stress testing and exercise prescription, Principles of assessment and treatment in intensive care unit setting and post operative conditions.

Unit IX: Physiotherapy in Gynecological & Obstetrical conditions: Principles of assessment and treatment in antenatal and post natal period. Fitness in women's health.

Unit X: Rehabilitation medicine and community based physiotherapy: Concept of rehabilitation and team approach, disability evaluation, architectural barrier, orthotics and prosthetic services

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