كلية العلاج الطبيعي

FACULTY OF PHYSICAL THERAPY

Department of Basic Sciences for Physical Therapy

BPT111 Ethics and Laws

١ Cr. Hrs. = (١ LCT + ٠ TUT + ٠ LAB + ٠ OTH) – SWL = ٤٥ – ECTS = ٢

Prerequisite - - -

Basic theoretical concepts of medical ethics: respect for persons, beneficence, and justice. Foundation of medical documentations. Principles of altruism, excellence, caring, ethics, respect, Communication skills with other professionals to achieve optimal health and wellness in individuals and communities. Medical liability and patients' rights.

BPT112 Kinesiology 1

٣ Cr. Hrs. = (٢ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٥٠ – ECTS = ٦

Prerequisite - - -

Foundations of structural Kinesiology. Reference positions and lines. Anatomical directional terminology. Body regions. Planes of Motion, Axes of rotation. Magnitude of Motion. Definition of Forces, Force of Gravity, Reaction forces. Equilibrium. Objects in Motion. Force of friction, Work. Moment arm of force, Force components. Equilibrium of levers.

BPT113 Tests and Measurements 1

٣ Cr. Hrs. = (٢ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٥٠ – ECTS = ٦

Prerequisite - - -

Overview of Physical therapy assessment techniques. principles of assessment. Anthropometric measurement. range of motion assessment for upper extremities and neck joints. manual muscle testing for upper extremities and neck. postural assessment. Assessment of Balance. Assessment of gait.

BPT214 Kinesiology 2

٣ Cr. Hrs. = (٢ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٥٠ – ECTS = ٦

Prerequisite - - -

Types of bones and its Properties. Classification of Joints. Movements in Joints. Movement Terminology. Physiological and accessory motions. Laws of motion and its clinical application. Functional anatomy (spine and extremities). Mechanics of human motion.

BPT215 Tests and Measurements 2

٣ Cr. Hrs. = (٢ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٥٠ – ECTS = ٦

Prerequisite - - -

Range of motion assessment for lower extremities and lumbar joints. manual muscle testing for lower extremities and lumbar joints. Advanced postural assessment. Advanced Assessment of gait.

BPT216 Biomechanics 1

٣ Cr. Hrs. = (٢ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٥٠ – ECTS = ٦

Prerequisite - - -

Mechanical principles applied to the human body. Forces act on the human body. Temporal kinematics. Spatial kinematics. Linear and angular motion. Kinetics.

BPT217 Therapeutic Modalities

٦ Cr. Hrs. = (٤ LCT + ٠ TUT + ٤ LAB + ٠ OTH) – SWL = ٣٠٠ – ECTS = ١١

Prerequisite - - -

Alternating, direct, and pulsed current. Neuromuscular electrical stimulation (NMES). Functional electrical stimulation (FES); Transcutaneous electrical nerve stimulation (TENS). Iontophoresis; electrical muscle stimulation. Ultrasound. Hydrotherapy modalities. Principles of heat and cold therapy. Limitations, indications, and contraindications of therapeutic modalities.

BPT218 Exercise Physiology

١ Cr. Hrs. = (١ LCT + ٠ TUT + ٠ LAB + ٠ OTH) – SWL = ٤٥ – ECTS = ٢

Prerequisite - - -

Introduction to exercise physiology. Energy transfer. Energy transfer for exercise and its measurement. Respiratory system: pulmonary component and exercise. Respiratory system: gas exchange and transport and exercise. Respiratory system: regulation and integration and exercise. Cardiovascular system: blood pressure and exercise. Cardiovascular system: regulation and integration and exercise. Cardiovascular system: cardiac output and exercise. Muscular system and exercise. Nervous system and exercise. Endocrine system and exercise.

BPT313 Evidence-based practice

٣ Cr. Hrs. = (٣ LCT + ٠ TUT + ٠ LAB + ٠ OTH) – SWL = ١٥٠ – ECTS = ٦

Prerequisite - - -

Introduction. Definition and meaning of evidence-based practice. Research process. Common research methods in physical therapy. Searching for, reading, and evaluating best evidence. Connection between physical therapy research and the evidence-based practice. Research findings and recommendation for practice. Integrating evidence-based practice into clinical decision making and knowledge mobilization.

BPT319 Biomechanics 2

٣ Cr. Hrs. = (٢ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٥٠ – ECTS = ٦

Prerequisite - - -

Introduction to gait analysis. The gait cycle: basic functions, objectives & critical events. Normal gait kinematics. Normal gait kinetics & muscle actions. Methods of gait analysis. Observational gait analysis (lab). Pathological gait & clinical evaluation.

BPT411 Ergonomics

٢ Cr. Hrs. = (١ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٠٥ – ECTS = ٤

Prerequisite BPT 216 - BPT 319

Ergonomics principles, methods and techniques. Human Beings - physical and psychological factors. Applied Anthropometry. Workplace Design and DSE. Manual Handling risks, assessments and controls. Upper Limb Disorders - risks, assessments and controls. Stress Management. Office Ergonomics. Biomechanics of Manual Lifting Tasks. Environmental Factors - Lighting, Floors and footwear, Noise.

Department of Physical Therapy for Internal Medicine

PTM321 Cardiopulmonary PT

٥ Cr. Hrs. = (٣ LCT + ٠ TUT + ٠ LAB + ٦ OTH) – SWL = ٢٨٥ – ECTS = ٩

Prerequisite **BPT 218, CMS 314**

Functional anatomy and physiology of cardiopulmonary system. Physical therapy management for COPD. Physical therapy management for Restrictive disease and. Physical therapy management for suppurative lung diseases. Physical therapy evaluation for patient inside ICU. Management of Bed Ridden Complications. Cardiac Rehabilitation and cardiopulmonary graded exercise testing. Understanding normal and abnormal response and adaptation to exercise.

PTM322 Internal Medicine PT

١ Cr. Hrs. = (١ LCT + ٠ TUT + ٠ LAB + ٠ OTH) – SWL = ٤٥ – ECTS = ٢

Prerequisite **CMS 313, BMS 341**

Physical therapy approach for patient in medical/surgical ICU and following surgeries. Physical therapy program for complications of diabetes and diabetic foot disorders. Physical therapy Assessment and treatment of lipid disorders and obesity. Physical therapy Assessment and treatment of hypo and hypertension.

PTM423 Intugmentary PT

٤ Cr. Hrs. = (٣ LCT + ٠ TUT + ٠ LAB + ٣ OTH) – SWL = ٢١٠ – ECTS = ٨

Prerequisite **BMS 124 - BMS 125 - BMS 352 - BMS 353 - CMS 323 - CMS 316**

Management of wound ulcers- Care of ulcers and wounds –Care of surgical scars. electro therapeutics for healing of wounds, prevention of Hypergranulated Scars Keloids, Electrotherapeutics measures for relief of pain during mobilization of scars tissues. Physiotherapy in dermatology -Documentation of assessment, treatment and follow up skin conditions. physiotherapy in various skin conditions; Vitiligo; Hair loss; Pigmentation; Infected wounds ulcers. Faradic foot bath for Hyperhydrosis. Care of anesthetic hand and foot; Evaluation, planning and management of leprosy- prescription, fitting and training with prosthetic and orthotic devices.

Department of Physical Therapy for Orthopedics

PTO431 Sport injuries PT

٦ Cr. Hrs. = (٤ LCT + ٠ TUT + ٠ LAB + ٦ OTH) – SWL = ٣٣٠ – ECTS = ١١

Prerequisite **CMS 423 - CMS 424 - CMS 425**

Post-operative injuries. ACL reconstruction. Meniscus tears. Rotator cuff repair. Acute and chronic musculoskeletal injuries. Sprains and strains. Tedonitis and bursitis. Functional activities testing & modifications. Sports/Activity specific exercises and training. Bracing and taping (athletic and kinesiotaping). Fabrication of protective pads. Modalities in sport injuries. Muscle reconditioning techniques.

PTO432 Orthopedics PT

٦ Cr. Hrs. = (٤ LCT + ٠ TUT + ٠ LAB + ٦ OTH) – SWL = ٣٣٠ – ECTS = ١١

Prerequisite **CMS 423 - CMS 424 - CMS 425**

Principles of PT management in fractures - Guidelines for fracture treatment. Degenerative and inflammatory conditions; Osteoarthritis - emphasis mainly on knee, hip and hand, Rheumatoid Arthritis, Ankylosing spondylitis, Gout, Perthes disease, Periarthritic shoulder. Define; review the postural abnormalities of spinal column, clinical features, deformities, medical and surgical management. Deformities: Review in detail the causes, signs and symptoms, radiological features, medical and surgical management. Amputations: Definition, levels, indications, types, PT assessment, aims, management pre and post operatively. PT management with emphasis on stump care and bandaging. Spinal conditions. Osteoporosis: Causes, predisposing factors, investigations and treatment. Orthopedic surgeries.

PTO533 Orthoses and Prostheses

٢ Cr. Hrs. = (١ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٠٥ – ECTS = ٤

Prerequisite **PTO 431- PTO 432**

Introduction Physical Stress Theory, &Orthotic Overview. Foot Orthotic, Hip, HKAFO, Congenital & Developmental Impairments, Spine, UE. Preventive and pre-operative care; overview of LE amputations; Post-op care; neuropathic foot; phantom limb; residual limb wrapping. Prosthetic Fabrication: components, alignment, assessment, and gait deviations. Gait deviations; distal femur rotation plasty; B TF; hip disarticulation. Prosthetic training; Exercise plan; Gait Training. Pediatric considerations; Cases. Upper Extremity prosthetics.

Department of Physical Therapy for Woman & Pediatric Health

PTH241 Growth and Development

١ Cr. Hrs. = (١ LCT + ٠ TUT + ٠ LAB + ٠ OTH) – SWL = ٤٥ – ECTS = ٢

Prerequisite - - -

Theories of Development. Prenatal Development. Motor milestones. Visual and hearing Development. Speech Development. Emotional Development.

PTH442 Woman Health PT

٢ Cr. Hrs. = (١ LCT + ٠ TUT + ٠ LAB + ٣ OTH) – SWL = ١٢٠ – ECTS = ٤

Prerequisite CMS 342

Anatomy and physiology of female reproductive system. Physiological changes of pregnancy. Antenatal period. Postnatal period. Physical therapy following cesarean section. Physical therapy following hysterectomy. Gestational diabetes. Menopause. Genital Prolapse.

PTH444 Occupational Therapy

٢ Cr. Hrs. = (١ LCT + ٠ TUT + ٢ LAB + ٠ OTH) – SWL = ١٠٥ – ECTS = ٤

Prerequisite - - -

Occupational therapy foundations for physical dysfunctions. Occupational therapy process and practice. Occupational performance; Evaluation and treatment. Therapeutic motivations and modalities. Orthotics.

PTH543 Pediatrics PT

٦ Cr. Hrs. = (٤ LCT + ٠ TUT + ٠ LAB + ٦ OTH) – SWL = ٣٣٠ – ECTS = ١١

Prerequisite PTH 241 - BMS 242 - CMS 433 - CMS 426

Guide to PT Practice model and the International Classification of Functioning, Disability, and Health (ICF)model. Typical Development and reflexes: Gross Motor Development; gross motor progression from ٠-٢ years of age, and the development of typical postural control: righting reactions, protective reactions, equilibrium reactions and balance. Fine Motor/Vision/Speech/Cognition/Sensory Processing: Postural Control: principles for control of movement and posture. Atypical Development: potential problem signs, soft signs, or “red flags” of development. Adaptive Equipment: for the special needs child at home, in school, in the community. Family/Client/Professional Communication. Selected Pediatric Conditions including but not limited to: cerebral palsy, torticollis, sports injury, Down syndrome, spina bifida, myopathy, common orthopedic conditions, mitochondrial disorders, Marie Charcot. Behavior Modification.

Department of Neurorehabilitation

PTN551 Motor Control

٣ Cr. Hrs. = (٢ LCT + ٠ TUT + ٠ LAB + ٠ OTH) – SWL = ١٠٥ – ECTS = ٤

Prerequisite **BMS 211 - BMS 234 - BMS 235**

Theories of motor control and motor learning. Current methods in human movement science and their implications for evidence-based practice. Neurophysiology behind motor control and motor learning.

PTN552 Neurology PT

٦ Cr. Hrs. = (٤ LCT + ٠ TUT + ٠ LAB + ٦ OTH) – SWL = ٣٣٠ – ECTS = ١١

Prerequisite **BMS 211 - BMS 234 - BMS 235 - CMS 512 - CMS 523**

Hemiplegia. Polyneuropathy. Extrapyramidal Disorders. Muscle Diseases. Multiple Sclerosis. Ataxia.

PTN553 Neurosurgery PT

٣ Cr. Hrs. = (٢ LCT + ٠ TUT + ٠ LAB + ٣ OTH) – SWL = ١٦٥ – ECTS = ٦

Prerequisite **CMS 524 - CMS 523**

Spinal cord injuries. Cervical disc prolapses. Lumber disc prolapse. Head Injuries. Peripheral nerve injuries.