UNIVERSITY OF ALBERTA
FACULTY OF REHABILITATION MEDICINE
Department of Physical Therapy

MScPT Program - Clinical Skills/Conditions & Professional Topics

The following tables list the skills, conditions and professional topics which are included in coursework within the MScPT program. Students are expected to demonstrate competence in these as well as new topics/practices learned within clinical placements.

Block 1 (prior to PTHER 517, 1 week introductory placement)	
General	
Client Centered Care – CORE model	Client Interviewing/History taking
Communication with colleagues & clients (including supervising therapists)	Basic ethical principles (including: autonomy, informed consent, confidentiality)
Infection prevention and control	Chart Review (lab / diagnostic imaging)
Professional regulations and associations	SOAP and DARP style progress notes
Focused History taking	Basic lab values
Introduction to medical screening	Goniometry
Complete Chart Review	Manual Muscle Testing
General Appearance	Passive/Active ROM
Vitals (HR, RR, BP, SpO2)	Endfeel of mvts
Sensation testing (including hot/cold, pinprick, light touch)	Surface Anatomy (landmarks)
Postural evaluation	Pain Rating Scales (eg VAS)
Introduction to therapeutic exercise	Patient Handling (Bed Mobility, Transfers)
Introduction to electrophysical agents	Functional outcome measures
Introduction to diagnostics imaging including basic image analysis and decisions rules for ordering images	Gait Re-ed, Aids (Crutchwalking, walkers)
Introduction to medications in PT including drug monographs, how and where to find drug information, as well as common drug classes (autonomic, cardiovascular, analgesia, central nervous system and respiratory)	Gait Analysis (outcome measure, stairs, W/C propulsion)
Representative case studies, introductions to conditions and diagnoses	
• Atherosclerosis • Coronary artery disease • Myocardial infarction • Deep vein thrombosis and pulmonary embolus • Abdominal Aortic Aneurysm • Vascular occlusive disease • Hypertension • Diabetes mellitus	• Osteoarthritis • Rheumatoid arthritis • Systemic Lupus Erythematosus • Gout • Ankylosing Spondylitis • Suicide risk and depression • Skin cancer • Symptoms of dizziness
Expectations for PTHER 517. Students should be able to take a history by the end of the week, and should begin to apply some of the skills learned this first block including PROM, MMT, gait analysis, and gait aid prescription.	

Blocks 2 (prior to PTHER 518) includes all of block 1 content plus. Basic Assessment and Treatment Interventions	
General	
Circulation (peripheral pulses)	EPA – Cryotherapy, TENS, U/S, IFC, NMES, SWD, High Voltage Pulsed Current, Wax, Contrast Baths, Laser for Hands, Hydrotherapy
Reflexes – DTR, Babinski	Hospital discharge options(eg Home care, Sub acute etc)
Therapeutic Exercise (Active assisted, Active, PRE, PNF, Functional ex, etc)	General Mobilization of medical/surgical patients
Cardiopulmonary response to exercise	Interprofessional team work
The value of research and using the evidence	Research design
Conflict resolution	
Musculoskeletal	**Cardiorespiratory**
U/E Scan	IPPA assessment
L/E Scan	Basic Chest X-ray analysis, Blood Gases. PFTs
Neurological Tests – SLR, Slump, ULTTs, Peripheral Nerve tests	Pre-op and post-operative care Anesthesia / General Surgery
Spinal and Peripheral Joint Assessments including AROM, PROM, Resisted Mvts, Functional / Special Tests, Joint Play, Endfeel, Palpation(Cspine, L Spine, Shldr, Elb, wrist, Hip, Knee, Ankle)	Postural Drainage / Autogenic Drainage
	Active Cycle breathing
	Assisted Coughing / Flutter / Coronet / High Freq Oscillating Vests/ Lung vol recruitment
Differential Diagnosis	Breathing Exercises / Inspirometry
Treatment Planning	Percussions/Vibrations
	Suctioning / sterile technique / Ventilator modes
	Cardiac Auscultation
	Introduction to critical care
	Pulmonary rehab
Representative Case Studies, Diagnoses & Conditions	
• Common Joint problems/injuries for peripheral joints – ankle, knee, shld, hip • Spinal Conditions/Injuries eg. Whiplash, LBP • Hip Fracture/ THR • Shld – Rot Cuff, Adh Capsulitis, Instability • Peripheral Nerve Injuries • Asthma and COPD • Pneumonia • Mechanical Ventilation	• Atelectasis • ARDS • Post-Op Abdominal Sx • Cystic fibrosis • HIV • CABG • Pneumothorax • Bronchiectasis • Pleural effusion • Obstructive sleep apnea
Expectations for PTHER 518. Further details are provided in the course outline. Overall goals, students should be able to carry 25-40% of a new graduate's caseload with direct CI supervision approximately 50-75% of the time. Factors such as caseload complexity and individual patient presentation will determine the exact caseload and supervision, but this is a general guide.	

Blocks 3 & 4 (prior to PTHER 520) **Basic Assessment and Treatment Interventions**	
General	
Regulatory Issues	Boundary Issues
Canadian Health Law	Disability ethics
Health promotion	Critically appraised topics, synthesised sources, clinical practice guidelines.
A variety of elective courses including critical care, msk clinic, practical sports, imaging	Patient and practice safety
Communication strategies	Supervision/delegation
Management issues	
Adult Neurology	**Paediatrics**
Neurological PT Assessment	Gross Motor Dev (primary reflexes/righting reactions)
Observation typical & atypical movement	Cerebral Palsy - Mvt patterns & Age appropriate management
Tone – hyper/hypotonia PROM & positioning	Bottoms up (vs Top down) Developmental Assessment
Motor Learning/functional retraining	Neuromotor Disabilities - handling & positioning
Strengthening in spasticity	Spasticity - Management, Stretching & Strengthening
Gait re-education	Pediatric Motor measures
Functional Retraining (rolling, sit up, st)	Gross Motor Functional Classification System
FES for U/E & L/E in stroke	Goal Attainment Scaling
Biofeedback	Can Occupational Perf Measure (COPM)
Edema Control	Community Fitness Programs
Constraint-induced therapy	
Outcome Measurements (Berg, COVS, Chedoke-McMaster, Barthel, FIM, Gait Index)	
W/C seating & prescription	
Neuro Clients - Functional Mobility	
KAFO Gait Training & Advanced W/C skills	
FES therapeutic exercise	
Geriatrics	
Balance Assessment	Dementia and delirium
Fall Risk Assessment, Prevention, Treatment	Aphasia
Exercise prescription	Mental health in the elderly
Osteoporosis education & exercise	Neuromusculoskeletal and cardiorespiratory changes due to aging
Representative Case Studies, Diagnoses & Conditions	
• Hypomobility conditions in peripheral joints • Stroke • TBI • Multiple Sclerosis, Guilliane Barre Syndrome, ALS • Parkinson's Disease • Older adults – falls, osteoporosis, frailty • Down's Syndrome • Developmental Delay	• Cerebral Palsy • Cystic Fibrosis & Bronchiectasis • Respiratory distress syndrome • Brachial Plexus injuries/syndromes • Myelomeningocele • Torticollis • Ped Neuromus Disease (eg Muscular Dystrophy) • Scoliosis

• Osteoporosis	• Osteoarthritis and arthroplasty, JRA • Haemophilia
Expectations for PTHER 520. Further details are provided in the course outline. Overall goals, students should be able to carry 50-60% of a new graduate's caseload with direct CI supervision approximately 35-50% of the time. Factors such as caseload complexity and individual patient presentation will determine the exact caseload and supervision, but this is a general guide.	

Block 5 and 6 (prior to PTHER 521, 522 and 523) Assessment and Treatment Interventions	
General	
Client Education/Adult Education	Self-management of Chronic Conditions
Business Ethics	Business planning
Ethical reasoning in clinical decision-making	Clinical Supervision
	Medical-legal communication
Long Term Conditions	**Musculoskeletal**
Condition Specific Assessments & Treatments for conditions listed below	Mobility & Stability tests L spine
SCI Classification Systems	Clearing tests C spine
Condition specific therapeutic exercise	Cranial Nerve testing
Outcome Measurements (Self Reports, QOL)	Muscle Energy L spine
Health Promotion & Management of Secondary conditions	Joint play mobilization of C, T & L spine
Acute MI, Heart failure and Cardiac rehabilitation	Traction
Wound Management	Neural Tension tests
Complex Conditions	Neurodynamic mobilization
Condition Specific Assessments & Treatments for conditions listed below	Mobilization techniques
Assistive Technology	Muscle Energy/Muscle mobilization techniques
Disability management	Stretching techniques for collagen
Labor & Delivery	Transverse Frictions
Pelvic Floor Therapy	Joint Play Mobilizations of Peripheral Jts
Sexual Health	Assessment and treatment of TMJ
Advacned medication application	Assessment and treatment of pelvis
Advanced diagnostic imaging application	Mobilization & Manipulation
Complex case studies	Instability assessment & treatment – Shd, Ankle, Knee, Lumbar
Representative Case Studies, Diagnoses & Conditions	
• Spinal Cord Injury • Cardiac Rehab for Heart Failure /Heart Transplants • Burns • Hand Injuries & post-op conditions • Oncology – Breast Cancer/Mastectomy • Post-polio syndrome • Ankylosing spondylosis	• RA, OA, • Spondyloarthropathy • Diabetes • Fibromyalgia • Amputee • Wounds • Incontinence • Chronic Pain • Complex MSK conditions

Expectations for PTHER 521. Further details are provided in the course outline. Overall goals, students should be able to carry 60-80% of a new graduate's caseload with direct CI supervision approximately 20-40% of the time.
For PTHER 522 students should be able to carry 80-90% of a new graduate's caseload with direct CI supervision approximately 15-25% of the time.
For PTHER 523 students should be able to carry 90-100% of a new graduate's caseload with minimal direct supervision. Factors such as caseload complexity and individual patient presentation will determine the exact caseload and supervision, but this is a general guide.