How Bond University Doctor of Physiotherapy Students have been prepared for their Musculoskeletal Outpatient Clinical Placement

Previous learning: In addition to completing previous coursework in the core areas of Cardiorespiratory, Orthopaedics and Neurological physiotherapy, students have also completed the following coursework subjects:

- *Musculoskeletal 1 (PHTY72-402)*
- *Musculoskeletal 2 (PHTY72-404)*

The main knowledge and skills covered in these subjects are outlined below.

Coursework subject	The main knowledge areas covered	The main practical skills covered
Musculoskeletal 1 (PHTY71-402)	• The major physiological and pathological processes occurring in the human musculoskeletal system, including bone, blood vessels, fascia, nerve, muscle and the integumentary system as they interrelate with the cardiovascular and neurological systems • The mechanisms of healing and repair in different human tissues and organs related to the musculoskeletal system • The effects of mental health and how common mental health co-morbidities manifest clinical • The mechanisms of action of pharmacological and non-pharmacological agents commonly used for musculoskeletal conditions • The role of physiotherapy in the management of selected peripheral joint musculoskeletal conditions and common peripheral joint surgeries • Conducting an outpatient client interview and planning a suitable examination	• Assessment and management of common peripheral joint outpatient conditions • Physical examination for musculoskeletal soft tissue disorders in the peripheral joints, including differential diagnosis, in outpatient settings • Use of the clinical reasoning process throughout the interview and history taking and physical examination to develop a provisional diagnosis from which an appropriate physical assessment and treatment plan can be developed • Treatment and prevention strategies, including use of manual therapy, Pilates, Yoga, movement-based activities with blue and green spaces, non-gymnasium, body weight and equipment-based exercise prescription, and client advice, information and education to support clinical interventions • Role of exercise (prescription, delivery and compliance) for the peripheral joints in the outpatient setting

	• Conducting an examination of common peripheral outpatient conditions • Differential diagnoses of peripheral joint injuries in terms of pathology and across the health span and lifespan • The basic treatment interventions for common peripheral joint conditions • The selection of appropriate outcome measures. • Evaluation of treatment intervention effectiveness and progression or modification of the intervention (based on clinical reasoning and evidence-based practice) • A basic knowledge of modern medical imaging techniques and having an understanding of the rationale for their selection. • An understanding of common musculoskeletal / orthopaedic surgical techniques • Lower limb and upper limb exercise techniques, including training principles and exercise selection • Fundamentals of a home exercise program that take into the account the patients capacity and time available to engage in such programs • Knowledge of the contribution of abnormalities in motor control to symptoms • Assessment and management of biomechanical contribution to peripheral joint injuries • Health promotion and injury prevention with a focus on 'movement that matters' to the patient. Ensuring all age-related national screening has been undertaken e.g. bowel screen, prostate & breast cancer screening • Integrated eco-bio-psycho-social models of healthcare underpinned by Motivational Interviewing strategies and Psychologically Informed physiotherapy practice	• Evaluation of the effects of the treatment plan with the ability to progress / modify at an optimal level for the patient's goals • Patient centred SMART short- and long-term goal setting for patients following orthopaedic surgery, and for patients in the musculoskeletal outpatient setting.

Musculoskeletal 2 (PHTY71-404)	• Anatomy and biomechanics of the cervical, thoracic, lumbar spine, sacroiliac joint (SIJ), and temporomandibular joint (TMJ). • History taking and physical examination for clients with musculoskeletal disorders of the spine, peripheral symptoms referred from the spinal structures, SIJ, TMJ, and vestibular system, using clinical reasoning to guide diagnosis and management planning • Pathophysiology and differential diagnosis of common cervical, thoracic, lumbar, SIJ, TMJ, and vestibular disorders. • Theories and principles of safe manual therapy in the spine • The principles of neurological assessment for the musculoskeletal spinal context • Imaging in vertebral column disorders • 'Red Flags' and 'Yellow Flags' in spinal disorders • Reliability, validity, sensitivity and specificity of commonly used objective outcomes/measures • Approaches to treatment for vertebral column, TMJ, and vestibular disorders, including manual therapy techniques, exercise prescription, and client education. • Indications/contraindications to treatment and evidence base for treatment selection • Exploration persistent and chronic musculoskeletal pain: assessment and management guidelines. • Exercise prescription, and client education in relation to spinal presentations. • Post-operative management of spinal conditions. • Documentation requirements and interprofessional communication for physiotherapy practice.	• History taking for clients with musculoskeletal vertebral column, TMJ, and vestibular disorders to enable hypothesis generation and provisional diagnosis. • Subjective and objective safety screening in relation to spinal presentations • Conducting physical examinations based upon patient history and clinical reasoning, including musculoskeletal and relevant neurological and vestibular assessments. • Applying clinical reasoning throughout the assessment process to develop a provisional diagnosis and treatment plan • Implementing manual therapy, exercise prescription, and client education for spinal, TMJ, and vestibular conditions • Health promotion and injury prevention strategies across the lifespan. • Evaluation of treatment effects with the ability to progress or modify interventions to meet patient goals. • Delivering gym-based rehabilitation for spinal conditions • Documenting assessment findings and treatment interventions in line with professional and legislative standards • Preparation for and participation in simulation-based learning and OSCE assessments to consolidate clinical skills.

	• Pharmacological principles relevant to musculoskeletal spinal conditions, including common medications, mechanisms of action, indications, contraindications, delivery methods, and safety considerations	