



## Masters of Physiotherapy (Graduate Entry) Definitions of assumed knowledge areas

### Human anatomy

- Study of human anatomy, particularly of the cardiopulmonary, nervous and musculoskeletal systems.
- It is *essential* that the following areas of the human body have been studied - bones, joints, ligaments, muscles, blood vessels and nerves of the upper limb, lower limb, vertebral column, thorax and pelvis, as well as the anatomy of the heart and lungs, brain and spinal cord and the somatosensory nervous system.
- It is *desirable* that applicants have also studied histological features of tissues of the cardiopulmonary, nervous and musculoskeletal systems, to have used a regional approach to their study (ie. studied the complete anatomy of the shoulder or hip or ankle and foot at one time before moving onto another body region) and to have attended laboratory classes in which human cadavers are studied.
- For examples of subjects that cover the necessary assumed knowledge, refer to the Unit of Study description of *BIOS1168 Functional Musculoskeletal Anatomy A* and *BIOS1169 Functional Musculoskeletal Anatomy B* in the Faculty of Health Science Handbook.

### Human physiology

- Study of the gross anatomy, functional histology and functioning of the main systems of the human body.
- It is *essential* that the following systems of the human body have been studied – cardiovascular, respiratory, renal, digestive, reproductive and endocrine.
- It is *desirable* that applicants have also studied pharmacology, immunology,
- It is *desirable* that applicants have also studied adaptations to the systems of the body during exercise and impact of exercise on system function.
- For examples of subjects that cover the necessary assumed knowledge, refer to the Unit of Study description of *BIOS1170 Body Systems: Structure and Function* in the Faculty of Health Science Handbook.

### Neuroscience

- Study of the anatomy and physiology of neural structures as well as fundamental concepts of nervous system functioning.
- It is *essential* that the anatomy of the brain and spinal cord have been studied.
- It is *essential* that applicants have also studied the structure of the nervous system and neurones as well as the basic electrical concepts underlying neural signals including signal transmission and communication.

- It is *essential* that the following systems/pathways have been studied – spinal reflexes, somatosensory system, autonomic nervous system and the descending motor pathways.
- It is *desirable* that students have attended laboratory classes in which human cadavers are studied.
- For examples of subjects that cover the necessary assumed knowledge, refer to the Unit of Study description of *BIOS1171 Neuroscience* in the Faculty of Health Science Handbook.

### **Biomechanics**

- Study of the application of mechanical principles to human movement and everyday human activities.
- It is *essential* that this study includes gait analysis.
- For examples of subjects that cover the necessary assumed knowledge, refer to the Unit of Study description of *EXSS1018 Biomechanics of Human Movement* in the Faculty of Health Science Handbook.

### **Psychology**

- Study, at an introductory level, of the major paradigms and methodological approaches of contemporary psychology as well as the origins and nature of modern societies (ie sociology).
- It is *desirable* to study these in relation to health and wellbeing.
- For examples of subjects that cover the necessary assumed knowledge, refer to the Unit of Study description of *BACH1161 Introductory Behavioural Health Sciences* in the Faculty of Health Science Handbook.

### **Motor performance and learning**

- Study of the acquisition and execution of skilled movements.
- It is *essential* that this study includes an examination of the features of the environment that can be manipulated to promote motor learning eg goal setting.
- It is *desirable* that this study includes both a behavioural and neurophysiological perspective of skilled movement.
- For examples of subjects that cover the necessary assumed knowledge, refer to the Unit of Study description of *EXSS2025 Motor Control and Learning* in the Faculty of Health Science Handbook.

### **Research Statistics**

- Study of research design and methods of data analysis and interpretation.
- It is *essential* that applicants have studied quantitative methods of data analysis and be familiar with some common data analysis tools.
- It is *desirable* that applicants have studied qualitative methods of data analysis.

- For examples of subjects that cover the necessary assumed knowledge, refer to the Unit of Study description of *HSBH1007 Health Science and Research* in the Faculty of Health Science Handbook.

**Measurement of human performance**

- Study of any aspect of measurement of the human body.
- Examples include – blood pressure, ECG, joint range of movement, muscle strength, psychometric tests.
- This material is typically covered during Units of Study which cover human physiology, biomechanics and psychology subject matter.