Faculty of Health Sciences

Master of Physiotherapy - 2016
Master of Physiotherapy (Graduate Entry)

Applicants for the Master of Physiotherapy course must have extensive pre-existing knowledge in the following 5 essential areas:

- Human Anatomy
- Human Physiology
- Exercise Physiology
- Neuroscience
- Psychology

We recognise that some universities may teach integrated anatomy and physiology; and that physiology, exercise physiology, and neuroscience may overlap. In these cases, there must be equivalent coverage, demonstrated in four or five units of study (subjects), of the material described below. The depth of coverage and learning and teaching hours will be assessed and taken into account.

All the units mentioned below can be studied as non-award units through the Faculty of Health Sciences. Successful completion of such study will meet the assumed knowledge requirement in the stated area(s). Please note that if you choose to undertake such non-award study, it will have to be completed (or be on track to complete) before commencement of the main Master’s program.

Depending on availability and scheduling, non-award studies can be done at the Faculty of Health Sciences or through Summer School. Please be aware that regardless of what method you choose in order to meet the assumed knowledge criteria, you have to complete this before commencement of the main program. Also to be noted is that if you do the units as a non-award student, you will have to pay upfront and will not be eligible for HECS-Help.

If you are currently studying at another faculty or university, depending on your course framework and if permitted by your home institution/faculty, you could also do the units mentioned in this document as cross-institutional units. By studying these units as a cross-institutional student, you will not have to pay for the unit(s) upfront as they will be considered as part of your current award course. Fees for any units done as cross-institutional can be absorbed into your current HECS debt (or as per your current payment method).
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 bones, joints muscles and nerves of the head and face
- It is essential that the anatomy of the human brain and spinal cord and somatosensory nervous system, heart, lungs, kidney and reproductive system have been studied. This anatomy may be covered in physiology, exercise physiology or neuroscience units of study. It is desirable that digestive anatomy have been studied
- It is desirable that applicants have also studied histological features of tissues of the musculoskeletal systems, to have used a regional approach to their study (i.e. 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 an example 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 Sciences Handbook. BIOS1168 & BIOS1169 are both available as undergraduate non-award study units. Please refer to [http://sydney.edu.au/courses/health-sciences-undergraduate-non-award](http://sydney.edu.au/courses/health-sciences-undergraduate-non-award) for further information

**Human Physiology**
- Study of the anatomy, histology, and physiology of the main systems of the human body
- It is essential that the anatomy and physiology of the following systems of the human body have been studied – cardiovascular, neural, respiratory, renal, digestive, reproductive and endocrine. Cardiovascular, respiratory and renal physiology and anatomy may instead be studied in exercise physiology units of study; neural physiology and anatomy may be studied in neuroscience units of study
- It is desirable that applicants have also studied pathophysiology of the systems described above
- It is desirable that applicants have also studied pharmacology, immunology
- For an example of a subject that covers the necessary assumed knowledge, refer to the Unit of Study description of BIOS1170 Body Systems: Structure and Function in the Faculty of Health Sciences Handbook. BIOS1170 is available as an undergraduate non-award study unit. Please refer to [http://sydney.edu.au/courses/health-sciences-undergraduate-non-award](http://sydney.edu.au/courses/health-sciences-undergraduate-non-award) for further information
Exercise Physiology

- It is essential that applicants have studied the responses of the human muscular and cardiorespiratory systems to acute exercise and to exercise training
- It is essential that applicants have studied the acute changes in endocrine and acid-base (renal and respiratory) regulation during exercise; and desirable that adaptations to exercise training have been studied
- It is desirable that both resistance training and aerobic exercise training have been studied
- It is desirable that effects of ageing, inactivity (or bed rest), disease (e.g. diabetes) and/or conditions (e.g. obesity) on responses to exercise and training have been studied
- For an example of a pair of subjects that cover the necessary assumed knowledge, refer to the Unit of Study description of EXSS2027 Exercise Physiology for Clinicians and EXSS1029 Muscle Mechanics and Training in the Faculty of Health Sciences Handbook. EXSS1029 & EXSS2027 are both available as undergraduate non-award study units. Please refer to [http://sydney.edu.au/courses/health-sciences-undergraduate-non-award](http://sydney.edu.au/courses/health-sciences-undergraduate-non-award) for further information

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 and physiology 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 (e.g. stretch reflex)
  - somatosensory system (including receptors and pathways for sensations such as touch, temperature, proprioception and pain)
  - autonomic nervous system (including the sympathetic and parasympathetic pathways), and
  - the descending motor pathways (including the pyramidal and extrapyramidal systems)
- It is desirable that students have attended laboratory classes in which human cadavers are studied
- For an example of a subject that covers the necessary assumed knowledge, refer to the Unit of Study description of BIOS1171 Neuroscience in the Faculty of Health Sciences Handbook. BIOS1171 is available as an undergraduate non-award study unit. Please refer to [http://sydney.edu.au/courses/health-sciences-undergraduate-non-award](http://sydney.edu.au/courses/health-sciences-undergraduate-non-award) for further information

Psychology

- Study, at an introductory level, of the major paradigms and methodological approaches of contemporary psychology
- It is desirable to study these in relation to health and wellbeing
- For an example of a subject that covers the necessary assumed knowledge, refer to the Unit of Study description of BACH1161 Introductory Behavioural Health Sciences in the Faculty of Health Sciences Handbook
- PSYC1001 or PSYC1002 (Available through the School of Psychology) is also an acceptable unit of study. BACH1161, PSYC1001 & PSYC1002 are all available as undergraduate non-award study units. Please refer to [http://sydney.edu.au/courses/health-sciences-undergraduate-non-award](http://sydney.edu.au/courses/health-sciences-undergraduate-non-award) for further information