

# Unit Outline (Higher Education)

|                            |   |
|----------------------------|---|
| <b>Institute / School:</b> | Institute of Health and Wellbeing                   |
| <b>Unit Title:</b>         | Anatomy and Physiology for Rehabilitation Science 1 |
| <b>Unit ID:</b>            | NHPBM1031   |
| <b>Credit Points:</b>      | 15.00   |
| <b>Prerequisite(s):</b>    | Nil   |
| <b>Co-requisite(s):</b>    | Nil   |
| <b>Exclusion(s):</b>       | Nil   |
| <b>ASCED:</b>              | 061703  |

## Description of the Unit:

This unit will introduce the principles of human body structure and function as relevant for students of Occupational Therapy. This includes an introduction to cells and tissues, the musculoskeletal system and the nervous system. This will include a detailed study of the gross anatomical structure and functional anatomy of the skull, vertebral column and the lower limb including the hip, thigh, knee, leg, ankle and foot. An integrated understanding of the human body will be achieved through online learning as well as practical sessions, including the interactive study of digital human cadaveric models and clinical case-studies. This blended approach to learning will facilitate the integration of learning material with contemporary clinical practice, through the correlation of anatomical structure to physiological function.

**Grade Scheme:** Graded (HD, D, C, P, MF, F, XF)

## Work Experience:

No work experience

**Placement Component:** No

**Supplementary Assessment:** Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment.

**Course Level:**

| Level of Unit in Course | AQF Level of Course |   |   |   |   |    |
|-------------------------|---------------------|---|---|---|---|----|
|                         | 5                   | 6 | 7 | 8 | 9 | 10 |
| Introductory            | ■                   | ■ | ■ | ✓ | ■ | ■  |
| Intermediate            | ■                   | ■ | ■ | ■ | ■ | ■  |
| Advanced                | ■                   | ■ | ■ | ■ | ■ | ■  |

### Learning Outcomes:

On successful completion of the unit the students are expected to be able to:

#### Knowledge:

- K1.** Identify and describe the structure (Anatomy) and function (physiology) of the musculo-skeletal and nervous systems
- K2.** Identify and describe the gross anatomy of the skull, vertebral column and the lower limb, including the hip, thigh, knee, leg, ankle and foot
- K3.** Discuss the relationship between the organisational levels of the human body from the cellular to the organ level
- K4.** Explain the fundamental science of selected imaging techniques
- K5.** Explain the basic kinesiology of the joints of the vertebral column and lower limb

#### Skills:

- S1.** Relate the concept of homeostasis to physiological processes;
- S2.** Demonstrate an understanding of imaging principles to the interpretation of ultrasound, radiographic and MRI images
- S3.** Apply underlying physiological principles to the care of a client in a practical scenario
- S4.** Collate and evaluate clinical data relevant to the functioning of various body systems.

#### Application of knowledge and skills:

- A1.** Critically apply anatomical and physiological knowledge to a human bioscience discipline.
- A2.** Assess and interpret selected imaging techniques with an applied understanding of the underpinning science

#### Unit Content:

The Occupational Therapy Board of Australia, OTBA Code of Conduct (2014) Australian Occupational Therapy Competency Standards (2018) and National Safety and Quality Health Service (NSQHS) Standards (2017) have substantially informed the syllabus/content of this unit.

- Musculoskeletal anatomy and physiology of muscles, bones, joints and ligaments
- Anatomy, kinesiology and physiology of the hip, thigh, knee, leg, ankle, foot and vertebral column
- Introduction to clinical imaging
- Cells, tissues, nerves and skin
- Anatomy and physiology of the nervous system

#### FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**tttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are embedded within

curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly assessed in each Course.*

| FEDTASK attribute and descriptor              |   | Development and acquisition of FEDTASKS in the Unit |                       |
|---|---|---|-----------------------|
|   |   | Learning Outcomes (KSA)                             | Assessment task (AT#) |
| FEDTASK 1<br>Interpersonal                    | Students will demonstrate high-level skills to effectively communicate, interact and work with others both individually and in groups Students will be required to display (in person and/or online) high-level skills in-person and/or online in: <ul style="list-style-type: none"> <li>• Effective verbal and non-verbal communication via a range of synchronous and asynchronous methods</li> <li>• Active listening for meaning and influencing</li> <li>• High-level empathy for others</li> <li>• Negotiating and demonstrating extended conflict resolution skills</li> <li>• Working respectfully in cross-cultural and diverse teams</li> </ul>  | Not applicable                                      | Not applicable        |
| FEDTASK 2<br>Leadership                       | Students will demonstrate the ability to apply leadership skills and behaviours Students will be required to display skills in: <ul style="list-style-type: none"> <li>• Creating, contributing to, and enabling collegial environments</li> <li>• Showing self-awareness and the ability to self-reflect for personal growth</li> <li>• Inspiring and enabling others</li> <li>• Making informed and evidence-based decisions through consultation with others</li> <li>• Displaying initiative and ability to solve problems</li> </ul>   | Not applicable                                      | Not applicable        |
| FEDTASK 3<br>Critical Thinking and Creativity | Students will demonstrate an ability to work in complex and ambiguous environments, using their imagination to create new ideas Students will be required to display skills in: <ul style="list-style-type: none"> <li>• Reflecting critically on complex problems</li> <li>• Synthesising, evaluating ideas, concepts and information</li> <li>• Proposing alternative perspectives to refine ideas</li> <li>• Challenging conventional thinking to clarify concepts through deep inquiry</li> <li>• Proposing creative solutions in problem solving</li> </ul>  | Not applicable                                      | Not applicable        |
| FEDTASK 4<br>Digital Literacy                 | Students will demonstrate the ability to work proficiently across a range of tools, platforms and applications to achieve a range of tasks Students will be required to display high-level skills in: <ul style="list-style-type: none"> <li>• Finding, accessing, collating, evaluating, managing, curating, organising and appropriately and securely sharing complex digital information at a high-level</li> <li>• Receiving and responding to messages in a range of digital media</li> <li>• Using digital tools appropriately to conduct research</li> <li>• Contributing proficiently to digital teams and working groups</li> <li>• Participating in and utilising digital learning opportunities</li> </ul> | Not applicable                                      | Not applicable        |

| FEDTASK attribute and descriptor             |  | Development and acquisition of FEDTASKS in the Unit |                       |
|--|--|---|-----------------------|
|  |  | Learning Outcomes (KSA)                             | Assessment task (AT#) |
| FEDTASK 5<br>Sustainable and Ethical Mindset | Students will demonstrate the ability to think ethically and sustainably. Students will be required to display skills in: <ul style="list-style-type: none"> <li>• The responsible conduct of research</li> <li>• Making informed judgments that consider the impact of devising solutions in multiple global economic environmental and societal contexts</li> <li>• Demonstrating commitment to social responsibility as a professional and a citizen</li> <li>• Generating research solutions which are sustainable, ethical, socially responsible and/or sustainable</li> <li>• Extending lifelong, life-wide and life-deep learning to be open to diverse others</li> <li>• Demonstrate extended actions to foster sustainability in their professional and personal life.</li> </ul> | Not applicable                                      | Not applicable        |

### Learning Task and Assessment:

| Learning Outcomes Assessed         | Assessment Tasks   | Assessment Type             | Weighting |
|------------------------------------|--|-----------------------------|-----------|
| K1, K2, K3, K4, S1, S2, S3, S4     | Quiz based on lesson content delivered with a focus on anatomy and physiology.   | Quiz                        | 5-15%     |
| K1, K2, K3, K4, S1, S2, S3, S4     | Quiz based on lesson content delivered with a focus on anatomy and physiology.   | Quiz                        | 5-15%     |
| K1, K5, A1                         | Oral presentation on a revision topic  | Oral                        | 5-15%     |
| K1, K2, K3, S2, S3, A2             | Flag race styled assessment based on lesson content delivered with a focus on laboratory tasks and fundamental knowledge | Practical Examination       | 20-40%    |
| K1, K2, K3, K4, S1, S2, S3, S4, A1 | Written examination covering all learning outcomes   | End of Semester Examination | 30-50%    |

### Adopted Reference Style:

APA

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)