PODI12010 *Advanced Anatomy and Podiatric Biomechanics*
Term 2 - 2018

Profile information current as at 28/04/2024 08:15 pm

General Information

Overview
This unit will provide you with comprehensive knowledge in functional anatomy and biomechanics of the lower limb specifically required in the profession of podiatry. A strong focus will be on the integration of anatomical structures and functions and how these both influence, and are influenced by the manner in which the skeletal, muscular, nervous, and circulatory systems work together. You will learn to use biomechanical terminology relating to the lower extremity that describes motion, position and structural abnormality. Theoretical principles, measurement techniques and gait analysis will also be investigated.

Details
Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites
Prerequisites: ALLH11005 Anatomy and Physiology for Health Professionals 1 and ALLH11004 Anatomy and Physiology for Health Professionals 2. PODI12006 Fundamentals of Pre-Clinical Podiatry Practice. Corequisite: PODI12009 Podiatry Clinical Practice 1.
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 2 - 2018
- Rockhampton
- Sydney

Attendance Requirements
All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website
This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

Regional Campuses
Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

Metropolitan Campuses
Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Online Quiz(zes)**
Weighting: 30%
2. **Practical and Written Assessment**
Weighting: 20%
3. **Examination**
Weighting: 50%
4. **On-campus Activity**
Weighting: Pass/Fail

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the University's Grades and Results Policy for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Staff reflection

Feedback

Learning in preparation for the Quiz

Recommendation

It is vital that students are knowledgeable in anatomy prior to treating patients in future years. One assessment included an online quiz which tested the students ability to remember the origin, insertion, action and innervations of different muscles, along with other content taught in the anatomy lectures. In future years it may be beneficial in giving the students more regular feedback, such as having a practice quiz at the end of each lecture. This way students get formative feedback regarding their anatomy skills and gives the opportunity to improve content knowledge.

Feedback from Student Feedback during the Term

Feedback

Organisation of the practicals

Recommendation

Throughout the term positive feedback was given during each practical session. The students found the hands of approach a useful way of learning. This included being able to practice each biomechanical test on each other which they found helpful in understanding the theory taught behind each test. The anatomy models were also beneficial as the students were able to visualise the muscles and anatomical structures, as opposed to only see images in the lecture slides. As this teaching strategy worked well, staff will continue to include hands-on practicals.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Describe and explain the functional anatomy of all muscle, tendon and joint units of the lower limb
2. Interpret the mechanical, physiological and anatomical concepts in the context of human physical performance
3. Use the key biomechanical terms and principles relating to the lower extremity, which describe motion, position and/or deformity
4. Perform a range of biomechanical assessments using quantitative measurement techniques, including assessment of their validity
5. Analyse the gait cycle, its determinants and the related phases of human locomotion.

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level ◦ Introductory Level • Intermediate Level • Graduate Level ◦ Professional Level ◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Online Quiz(zes) - 30%	•	•			
2 - Practical and Written Assessment - 20%	•	•	•	•	•
3 - Examination - 50%	•	•	•		•

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
4 - On-campus Activity - 0%	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	•
2 - Problem Solving	•	•	•	•	•
3 - Critical Thinking	•	•	•	•	•
4 - Information Literacy	•	•	•	•	•
5 - Team Work	•		•	•	
6 - Information Technology Competence	•	•	•	•	•
7 - Cross Cultural Competence			•	•	
8 - Ethical practice			•	•	
9 - Social Innovation					
10 - Aboriginal and Torres Strait Islander Cultures					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Online Quiz(zes) - 30%	•	•	•	•		•	•	•		
2 - Practical and Written Assessment - 20%	•	•	•	•				•		
3 - Examination - 50%	•	•	•	•			•	•		
4 - On-campus Activity - 0%	•	•	•	•	•	•	•	•		

Textbooks and Resources

Textbooks

PODI12010

Prescribed

Clinical biomechanics of the lower exrtremities
Edition: First (1996)
Authors: Ronald L. Valmassey
Mosby
St Louis , Missouri , USA
ISBN: 978-0801679865
Binding: Hardcover
PODI12010

Supplementary

Muscles: Testing and Function with Posture and Pain
Fifth Review Edition (2005)
Authors: Florence Kendall
Lippincott, Williams and Wilkins
USA
ISBN: 978-0781747806
Binding: Hardcover

Additional Textbook Information
These textbooks are often cheaper to source through online bookshops such as Elsevier or Amazon. However please be mindful of longer shipping times for overseas purchases.
However, you can also support your University by purchasing at the CQUni Bookshop here.

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: American Psychological Association 6th Edition (APA 6th edition)
For further information, see the Assessment Tasks.

Teaching Contacts

Malia Ho Unit Coordinator
m.ho@cqu.edu.au

Schedule

Week 1 - 09 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Overview of Unit Hip and Anterior Thigh Hip Joint		

Week 2 - 16 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Gluteal Region Posterior Thigh		

Week 3 - 23 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Knee Joint Leg		

Week 4 - 30 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Ankle Foot		

Week 5 - 06 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Public holiday (NSW)		Online Quiz (30%) More information regarding the venue and time of the online quiz will be provided at the beginning of term.

Vacation Week - 13 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 20 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Overview of Podiatric Biomechanics What is biomechanics? Kinetic and Kinematic Concepts of Human Movement		

Week 7 - 27 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Static Assessments Open Chain Joint Assessment Closed Chain Joint Assessment		

Week 8 - 03 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Dynamic Assessments Gait Analysis of the Lower Limb in 2D - Kinematics		

Week 9 - 10 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Gait Analysis of the Lower Limb in 2D - Kinetics		

Week 10 - 17 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Orthotic Fabrication Principals		

Week 11 - 24 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
		OSCE (20%)

Week 12 - 01 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

Revision		**On Campus Activity - Pass/Fail** Due: Week 12 Monday (1 Oct 2018) 11:45 pm AEST

Review/Exam Week - 08 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
Review Week		

Exam Week - 15 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

In all practical classes, students are required to wear the Podiatry Polo shirt and dark coloured pants, shorts, leggings or tights. Students must purchase their uniform from the bookshop.
http://bookshop.cqu.edu.au/details.asp?ITEMNO=1110000107568
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Assessment Tasks

1 Online quiz

Assessment Type
Online Quiz(zes)

Task Description
There will be one online quiz in Week 5, covering content from Weeks 1-4. The quiz will consist of 30 questions and will have a time limit of 60 minutes. The quiz will take place in a computer lab and is a closed book task. Access to books, notes, websites (other than the quiz) and the use of electronic devices are prohibited during the quiz. More details on the venue and time of the online quiz will be provided at the start of term.

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date

More detailed information of the venue and time of the online quiz will be provided at the start of term.

Return Date to Students

Weighting
30%

Assessment Criteria
The online quiz is worth 30% of your overall grade. The quiz will be marked according to a purpose made mark sheet.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
Online

Learning Outcomes Assessed

- Describe and explain the functional anatomy of all muscle, tendon and joint units of the lower limb
- Interpret the mechanical, physiological and anatomical concepts in the context of human physical performance

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

2 Objective Structured Clinical Examination

Assessment Type
Practical and Written Assessment

Task Description
This assessment is an Objective Structured Clinical Examination (OSCE). This will occur in Week 11. There will be a number of OSCE stations each designed to assess your knowledge and practical skills acquired during this course. A mix of station types and competencies will be tested in this assessment. There will be a combination of written answer stations and observer assessed stations. More detailed information on the venue and time of the OSCE will be provided at the start of term.

Assessment Due Date

Return Date to Students

Weighting
20%

Minimum mark or grade
50%

Assessment Criteria
The OSCE will be marked according to a specific rubric which will be made available at the start of the term.
Podiatry unit OSCE conditions section:
In order to be eligible to PASS the Objective Structured Clinical Examination (OSCE) you must:
1) achieve a minimum overall grade of 50% for the OSCE.
If you do not meet the above criterion of a minimum overall grade of 50%, you may be eligible for a supplementary assessment providing you meet the requirements as stipulated in the CQUniversity Grades and Results Procedure. This will be determined by the Unit Coordinator and explained in detail during the term.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
Offline

Learning Outcomes Assessed

- Describe and explain the functional anatomy of all muscle, tendon and joint units of the lower limb
- Interpret the mechanical, physiological and anatomical concepts in the context of human physical performance
- Use the key biomechanical terms and principles relating to the lower extremity, which describe motion, position and/or deformity
- Perform a range of biomechanical assessments using quantitative measurement techniques, including assessment of their validity
- Analyse the gait cycle, its determinants and the related phases of human locomotion.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Ethical practice

3 On Campus Activity - Pass/Fail

Assessment Type
On-campus Activity

Task Description
You will be required required to work as a group to complete tasks assigned during tutorial and practical sessions. These tasks may include group discussions and presentations.
The activities covered in this unit cover professional podiatry skills, which are inherent requirements to meet the professional standards and are integral to your achievement of learning outcomes and assessment in this unit. At least 85% attendance at tutorials, practicals and/or workshops is therefore required to satisfactorily PASS this unit. The Unit Coordinator will keep attendance records for all classes. If you are unable to attend a class, you must notify the Unit Coordinator (in writing/ by email) as soon as possible. Please also provide a medical certificate or a statutory declaration supporting your absence. Failure to maintain a satisfactory record may seriously undermine your ability to complete the unit.

Assessment Due Date
Week 12 Monday (1 Oct 2018) 11:45 pm AEST
Attendance is recorded throughout the term

Return Date to Students
Review/Exam Week Monday (8 Oct 2018)
End of term

Weighting
Pass/Fail

Assessment Criteria
Topics of group discussions and presentations will be made available to students at the beginning of term.
The Unit Coordinator will keep attendance records for all classes. If you are unable to attend a class, you must notify the Unit Coordinator (by email) as soon as possible.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)

Submission
No submission method provided.

Submission Instructions
Attendance is recorded by Unit Coordinator throughout the term

Learning Outcomes Assessed

- Describe and explain the functional anatomy of all muscle, tendon and joint units of the lower limb
- Interpret the mechanical, physiological and anatomical concepts in the context of human physical performance
- Use the key biomechanical terms and principles relating to the lower extremity, which describe motion, position and/or deformity
- Perform a range of biomechanical assessments using quantitative measurement techniques, including assessment of their validity
- Analyse the gait cycle, its determinants and the related phases of human locomotion.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

Examination

Outline
Complete an invigilated examination.

Date
During the examination period at a CQUniversity examination centre.

Weighting
50%

Length
180 minutes

Exam Conditions
Closed Book.

Materials
Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).
Calculator - non-programmable, no text retrieval, silent only

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem