



# ESSC13007 *Functional Anatomy*

## Term 3 - 2017

Profile information current as at 24/04/2024 06:15 am

All details in this unit profile for ESSC13007 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

## General Information

### Overview

The development of foundation knowledge and competencies in functional anatomy complements previous anatomy units and provides the cornerstone to manual assessment of musculoskeletal conditions. This unit will provide students with a comprehensive knowledge necessary to identify the structural and functional requirements of the musculoskeletal system in relation to human motion for a variety of activities. The unit will involve a detailed understanding of the anatomy of the limbs and the functional principles underpinning limb movement including an understanding of the performance aspects of muscle, joints and the mechanics of movement. Students involved in various health related disciplines will gain knowledge in manual location and assessment of musculoskeletal structures as they apply to rehabilitation, exercise conditioning and general movement.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 10

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

Pre-requisite: BMSC11001 Human Body Systems 1 AND BMSC11002 Human Body Systems 2

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 3 - 2017

- Distance
- Rockhampton

### 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).

### Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

### 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. **Written Assessment**

Weighting: 25%

#### 2. **Practical Assessment**

Weighting: 25%

#### 3. **On-campus Activity**

Weighting: Pass/Fail

#### 4. **Examination**

Weighting: 50%

### 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 moodle

**Feedback**

More practical, hands on in residential school

**Recommendation**

Change the way delivered and time spent on individual activities during the residential school.

#### Feedback from Moodle

**Feedback**

A big step above Human body systems

**Recommendation**

Provide an introduction before the course with required readings

## Unit Learning Outcomes

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

1. Develop an understanding of the structure and function of the musculo-skeletal system in relation to human movement.
2. Identify and palpate the bones, bony landmarks, ligaments and muscles of the upper and lower limbs.
3. Analyse the relationship between muscle location and action as it applies to human motion

This unit is designed to encompass both theoretical and practical aspects of functional anatomy. The unit lectures will cover the advanced theoretical knowledge related to the subject matter. The practical laboratory/workshop sessions will then build on the theoretical knowledge gained during the lectures and allow students to gain experience in identifying, locating and assessing muscular actions across a range of movement activities. Assessments for this unit will be based on the development of a muscle portfolio and a practical video demonstration of a muscular assessment of movement. Students will also sit an examination of the theoretical knowledge gained about the musculo-skeletal system. The assessment pieces will allow students to gain a comprehensive knowledge necessary to identify the structural and functional requirements of the musculo-skeletal system

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

| Assessment Tasks               | Learning Outcomes |   |   |
|--------------------------------|-------------------|---|---|
|                                | 1                 | 2 | 3 |
| 1 - Written Assessment - 25%   | •                 | • | • |
| 2 - Practical Assessment - 25% | •                 | • | • |
| 3 - Examination - 50%          | •                 | • | • |
| 4 - On-campus Activity - 0%    | •                 | • |   |

## Alignment of Graduate Attributes to Learning Outcomes

| Graduate Attributes                                 | Learning Outcomes |   |   |
|---|-------------------|---|---|
|   | 1                 | 2 | 3 |
| 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 - Written Assessment - 25%   | •                   | • | • | • |   | • |   |   |   |    |
| 2 - Practical Assessment - 25% | •                   | • | • | • |   | • |   | • |   |    |
| 3 - Examination - 50%          | •                   |   | • |   |   |   |   |   |   |    |
| 4 - On-campus Activity - 0%    | •                   | • | • | • | • | • |   | • |   |    |

## Textbooks and Resources

### Textbooks

ESSC13007

#### Prescribed

##### **Manual of Structural Kinesiology**

19th Edition (2014)

Authors: R .T. Floyd; Clem Thompson

McGraw-Hill

USA

ISBN: ISBN-13: 978-0073369297 ISBN-10: 0073369292

Binding: Paperback

#### Additional Textbook Information

[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

**Crystal Kean** Unit Coordinator

[c.kean@cqu.edu.au](mailto:c.kean@cqu.edu.au)

## Schedule

### Week 1 - 06 Nov 2017

| Module/Topic   | Chapter   | Events and Submissions/Topic |
|--|---|------------------------------|
| Foundations of Structural Kinesiology and Neuromuscular Fundamentals | Chapter 1 – Foundations of Structural Kinesiology<br>Chapter 2 – Neuromuscular Fundamentals |                              |

### Week 2 - 13 Nov 2017

| Module/Topic                             | Chapter  | Events and Submissions/Topic |
|--|--|------------------------------|
| Basic Biomechanical Factors and Concepts | Chapter 3 – Basic Biomechanical Factors and Concepts |                              |

### Week 3 - 20 Nov 2017

| Module/Topic | Chapter | Events and Submissions/Topic |
|--------------|---------|------------------------------|
|--------------|---------|------------------------------|

The Shoulder  
 Chapter 4 – The Shoulder Girdle  
 Chapter 5 – The Shoulder Joint  
 Chapter 8 – Muscular Analysis of Upper-Extremity Exercises

**Week 4 - 27 Nov 2017**

| Module/Topic               | Chapter  | Events and Submissions/Topic |
|----------------------------|--|------------------------------|
| The Elbow, Wrist, and Hand | Chapter 6 – The Elbow and Radioulnar Joints<br>Chapter 7 – The Wrist and Hand Joints<br>Chapter 8 – Muscular Analysis of Upper-Extremity Exercises |                              |

**Vacation Week - 04 Dec 2017**

| Module/Topic | Chapter | Events and Submissions/Topic |
|--------------|---------|------------------------------|
|--------------|---------|------------------------------|

**Week 5 - 11 Dec 2017**

| Module/Topic       | Chapter  | Events and Submissions/Topic |
|--------------------|--|------------------------------|
| The Pelvis and Hip | Chapter 9 – The Hip Joint and Pelvic Girdle<br>Chapter 13 - Muscular Analysis of the Trunk and Lower-Extremity Exercises |                              |

**Week 6 - 18 Dec 2017**

| Module/Topic              | Chapter  | Events and Submissions/Topic |
|---------------------------|--|------------------------------|
| The Knee, Ankle, and Foot | Chapter 10 - The Knee Joint<br>Chapter 11 - The Ankle and Foot Joints<br>Chapter 13 - Muscular Analysis of the Trunk and Lower-Extremity Exercises |                              |

**Week 7 - 01 Jan 2018**

| Module/Topic        | Chapter   | Events and Submissions/Topic  |
|---------------------|---|---|
| The Trunk and Spine | Chapter 12 – The Trunk and Spinal Column<br>Chapter 8 – Muscular Analysis of Upper-Extremity Exercises<br>Chapter 13 - Muscular Analysis of the Trunk and Lower-Extremity Exercises | On-Campus Activity Assessment Due: Residential School (see Handbook for dates and locations)<br><b>Written Assessment</b> Due: Week 7 Tuesday (2 Jan 2018) 5:00 pm AEST |

**Week 8 - 08 Jan 2018**

| Module/Topic  | Chapter | Events and Submissions/Topic |
|---|---------|------------------------------|
| Revision of Relevant Physiological and Biomechanical Concepts |         |                              |

**Week 9 - 15 Jan 2018**

| Module/Topic  | Chapter          | Events and Submissions/Topic  |
|---------------|------------------|---|
| Gait Analysis | Online Resources | <b>Practical Assessment</b> Due: Week 9 Monday (15 Jan 2018) 5:00 pm AEST |

**Week 10 - 22 Jan 2018**

| Module/Topic  | Chapter          | Events and Submissions/Topic |
|---|------------------|------------------------------|
| Movement Analysis - Activities of Daily Living and Occupational Tasks | Online Resources |                              |

**Week 11 - 29 Jan 2018**

| Module/Topic                           | Chapter          | Events and Submissions/Topic |
|--|------------------|------------------------------|
| Movement Analysis - Sport and Exercise | Online Resources |                              |

## Week 12 - 05 Feb 2018

| Module/Topic                  | Chapter | Events and Submissions/Topic |
|-------------------------------|---------|------------------------------|
| Revision and Exam Preparation |         |                              |

## Review/Exam Week - 12 Feb 2018

| Module/Topic | Chapter | Events and Submissions/Topic |
|--------------|---------|------------------------------|
|--------------|---------|------------------------------|

## Exam Week - 12 Feb 2018

| Module/Topic | Chapter | Events and Submissions/Topic |
|--------------|---------|------------------------------|
|--------------|---------|------------------------------|

## Term Specific Information

In order to pass this unit, students must attain at least 50% overall and, where applicable, meet the minimum mark specified for an assessment.

Please note this unit does have a compulsory residential school. Date/location information can be found in the Handbook and further information will be made available on Moodle.

Additional Contact Details:

Caitlin George

c.e.george@cqu.edu.au

## Assessment Tasks

### 1 Written Assessment

#### Assessment Type

Written Assessment

#### Task Description

For this assessment you will need to answer a total of four (4) questions. Two (2) questions will be related to functional anatomy of the upper body and two (2) questions will be related to functional anatomy of the lower body. Questions will be related to movement patterns of bones/joints and/or actions of muscles, how these may be altered with a particular health condition or during different exercises/activities, and how you may address any abnormal movement/actions through specific exercises.

Each answer is to be between 300-400 words and you must use 2-3 peer-reviewed journal articles to support each answer. You may also include one figure/diagram or one table to support your answer. In-text referencing, and words in figures/diagrams or tables count towards your total word limit.

Questions will be made available via Moodle at the end of Week 1.

#### Assessment Due Date

Week 7 Tuesday (2 Jan 2018) 5:00 pm AEST

#### Return Date to Students

Week 9 Monday (15 Jan 2018)

#### Weighting

25%

#### Assessment Criteria

Grades for this assessment will be based on correctness of the answer; comprehension and use of supporting peer-reviewed journal articles; writing style (correct grammar, spelling, and reference formatting); and adherence to word count limits.

#### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

#### Submission

Online

## Learning Outcomes Assessed

- Develop an understanding of the structure and function of the musculo-skeletal system in relation to human movement.
- Identify and palpate the bones, bony landmarks, ligaments and muscles of the upper and lower limbs.
- Analyse the relationship between muscle location and action as it applies to human motion

## Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

## 2 Practical Assessment

### Assessment Type

Practical Assessment

### Task Description

This assessment consist of two (2) parts and is related to material covered in Weeks 1 through 7 (inclusive) as well as activities completed in residential school.

**Part A - Station-based Exam:** This portion of the assessment consists of approximately 25 stations set up around the room, each with a set question that must be answered within a set time period. After the time period has lapsed, you will rotate to the next station and repeat this until you have been to all stations. There will be a maximum of one (1) student per station at a time. You will be given an answer sheet on which to write your answers. At the end of the exam period (1hr), you answer sheet must be returned to the unit coordinator. The station-based exam is closed book so the only things you will be allowed to have on you are pens (blue or black ink only) and your answer sheet.

**Part B - Movement Analysis:** For this portion of the assessment you are to submit the complete movement analysis tables (four (4) tables total) related to a series of movement analyses completed during the residential school. There will be two (2) movement analyses based on upper body movements and two (2) based on lower body movements. To complete the tables you will need to identify various phases of the movement, the primary plane of the movement, joint actions and muscles (including contraction type) involved in the movement. These analyses and tables will be discussed in small groups during the residential school and following the residential school you will be required to submit an electronic copy of your completed tables. Note, final tables and submissions are to be completed individually.

### Assessment Due Date

Week 9 Monday (15 Jan 2018) 5:00 pm AEST

Part A will be completed during residential school and the answer sheet is to be submitted to the unit coordinator at the end of the exam period. Part B is to be submitted by the due date listed above.

### Return Date to Students

Week 11 Monday (29 Jan 2018)

### Weighting

25%

### Assessment Criteria

Answers will be assessed based on correctly identifying anatomical landmarks, and answering written questions. Partial marks will be awarded where appropriate. Minor spelling errors are permitted as long as they do not change the meaning of the word.

### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

### Submission

Offline Online

### Submission Instructions

Part A Answer Sheets are to be submitted offline following completion of the exam at residential school; Part B Movement Analysis Tables are to be submitted online via the Moodle submission link by the due date listed above.

## Learning Outcomes Assessed

- Develop an understanding of the structure and function of the musculo-skeletal system in relation to human movement.
- Identify and palpate the bones, bony landmarks, ligaments and muscles of the upper and lower limbs.
- Analyse the relationship between muscle location and action as it applies to human motion



## Graduate Attributes

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

## 3 On-Campus Activity

### Assessment Type

On-campus Activity

### Task Description

For this assessment, you are required to attend (and actively participate in) the one (1) day residential school. Please ensure you leave adequate time to arrive at residential school and return to the airport, as if you miss >10% (1 hour) of the 9am-5pm attendance time it will result in a fail grade.

### Assessment Due Date

Attendance at the residential school in Week 7

### Return Date to Students

Week 8 Monday (8 Jan 2018)

### Weighting

Pass/Fail

### Minimum mark or grade

Pass

### Assessment Criteria

This assessment item is based on Pass/Fail grading. If you attend and actively participate in all residential school sessions you will pass this assessment piece. If you miss >10% (1 hour) of the 9am-5pm attendance time it will result in a fail grade.

### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

### Submission

Offline

### Submission Instructions

No documentation is required to be submitted. You will be required to sign attendance sheets for the residential school.

### Learning Outcomes Assessed

- Develop an understanding of the structure and function of the musculo-skeletal system in relation to human movement.
- Identify and palpate the bones, bony landmarks, ligaments and muscles of the upper and lower limbs.

## Graduate Attributes

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

## Examination

### Outline

Complete an invigilated examination.

### Date

During the examination period at a CQUniversity examination centre.

**Weighting**

50%

**Length**

120 minutes

**Exam Conditions**

Closed Book.

**Materials**

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).  
No calculators permitted

## 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