



# BMSC11003 *Introduction to Medical Sciences*

## Term 1 - 2017

Profile information current as at 20/04/2024 11:36 pm

All details in this unit profile for BMSC11003 have been officially approved by CQU University 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

This unit provides an introduction to the Medical Sciences specialisations of pathology, clinical measurement, nutrition and biotechnology. An inter-disciplinary, integrated approach will be provided so that you will also understand the relationships of the disciplines with one another. You will develop an understanding of the key roles of each discipline, professional practice, investigative procedures and application of medical sciences in modern health care. This will also allow you to make an informed choice about which specialisation to study in subsequent years.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

There are no requisites for this unit.

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 1 - 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: 30%

#### 2. **Written Assessment**

Weighting: 40%

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

Weighting: 30%

### 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 Student feedback.

##### Feedback

Introduce a weekly activity sheet that addresses the topics covered during that week.

##### Recommendation

Weekly activity sheets will be developed, which will help to provide a study resource for each week's content.

##### Action

Weekly activity sheets were used.

#### Feedback from Student feedback.

##### Feedback

Moodle forum posts need to be replied to in a more timely manner.

##### Recommendation

Perhaps assign a dedicated time to check and respond to moodle forum posts.

##### Action

The new unit coordinator has always responded promptly to student queries and posts.

## Unit Learning Outcomes

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

1. Illustrate the application of medical sciences in modern healthcare.
2. Outline the standards of practice in medical sciences.
3. Understand investigative procedures used in medical sciences.
4. Understand key roles of each discipline in medical sciences.
5. Understand professional practice in medical sciences.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
<b>1 - Written Assessment - 30%</b>	•	•			
<b>2 - Written Assessment - 40%</b>			•	•	•
<b>3 - On-campus Activity - 30%</b>		•	•		

### 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 - Written Assessment - 30%	•			•		•		•		
2 - Written Assessment - 40%	•		•		•	•				
3 - On-campus Activity - 30%		•	•	•						

## Textbooks and Resources

### Textbooks

**There are no required textbooks.**

#### Additional Textbook Information

This course gives an introduction to a wide range of topics across the breadth of medical sciences and therefore no single textbook is appropriate nor available that covers all aspects. In response to feedback from some students requesting some guidance on further reading, it is suggested that for those students who like to have a textbook then the following should be considered..

For those students more interested in pursuing a career in **nutrition** and who are likely to select the nutrition specialisation in years 2 and 3 then the following text will be of use for this course and throughout your degree ; Aspden W, *et al.* Practical Skills in Food Science, Nutrition and Dietetics.(2011) Pearson Education Limited. ISBN 978-1-4082-2309-3

For those students more interested in pursuing a career in **clinical investigation** and who are likely to select the clinical investigation specialisation in years 2 and 3 then the following text will be of use in this course and throughout your degree; Raeburn P, *et al.* Practical Skills in Sport and Exercise Science (2011) Pearson Education Limited. ISBN 978-4082-0377-4

For those students more interested in pursuing a career in medical laboratory science and who are likely to select the **pathology** specialisation in years 2 and 3 then the following text will be of use in this course and throughout your degree. Reed R., *et al.* Practical Skills in Biomolecular Sciences 4<sup>th</sup> Ed (2013). Pearson Education Limited. ISBN 978-14082-4552-1

For those students more interested in pursuing a career in **biotechnology** and who are likely to select the biotechnology specialisation in years 2 and 3 then the following text will be of use in this course and throughout your degree. Langford A *et al.* Practical Skills in Forensic Science 2<sup>nd</sup> Ed (2010) Pearson Education Limited. ISBN 978-0-13-239143-6

### IT Resources

**You will need access to the following IT resources:**

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

## Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**William Aspden** Unit Coordinator

[w.aspden@cqu.edu.au](mailto:w.aspden@cqu.edu.au)

## Schedule

### Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Main Specialisations - Application of Medical Sciences in Modern Health Example: Case Study - What you don't know can't harm you?		

### Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Professional Writing and Communication / Medical Abbreviations		
<b>Week 3 - 20 Mar 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Ethics, Scope of Practice, Confidentiality		
<b>Week 4 - 27 Mar 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Student Declaration and Work Placements		
<b>Week 5 - 03 Apr 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Investigative Procedures		
<b>Vacation Week - 10 Apr 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
<b>Week 6 - 17 Apr 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Measurements in Physical Sciences		<b>Assessment item 1: Historical perspective on the role of medical science professionals, through to modern healthcare settings</b> Due: Week 6 Friday (21 Apr 2017) 5:00 pm AEST
<b>Week 7 - 24 Apr 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Infectious Diseases		
<b>Week 8 - 01 May 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Non-communicable Diseases		
<b>Week 9 - 08 May 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Genetics		
<b>Week 10 - 15 May 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Residential School 15-16 May		
<b>Week 11 - 22 May 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Finalisation, Completion and Submission of Group Task Written Assessment 2. (One student per group to submit the Poster.)		<b>Assessment item 2: Group Activity Poster (Obesity's impact on modern healthcare)</b> Due: Week 11 Friday (26 May 2017) 5:00 pm AEST
<b>Week 12 - 29 May 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Individual Reflection on Material/Concepts Covered		
<b>Review/Exam Week - 05 Jun 2017</b>		

Module/Topic	Chapter	Events and Submissions/Topic
<b>Exam Week - 12 Jun 2017</b>		
Module/Topic	Chapter	Events and Submissions/Topic

## Term Specific Information

This unit has a compulsory Residential School for all students. To pass the Unit you must attend the full Residential School.

## Assessment Tasks

### 1 Assessment item 1: Historical perspective on the role of medical science professionals, through to modern healthcare settings

#### Assessment Type

Written Assessment

#### Task Description

This task is a written assignment exploring the development of one of the core medical science disciplines of Pathology, Clinical Investigations, Nutrition or Biotechnology. Your essay will cover key events which shaped one of these professions from prior to the 20th century to the present day.

Students will build a timeline and provide written discussion of 1000 words ( $\pm 10\%$ ) which includes 5 sections as follows: 200 ( $\pm 10\%$ ) words per section

1. Discuss what procedures were available/conducted from the 1900's to the present regarding one of the following specialisation areas: nutrition investigations; clinical investigations; pathology; or biotechnology.
2. What persons performed these procedures (were they specialists or general scientists/doctors/nurses etc.).
3. Impact of technology advancement on procedures and processes.
4. Discuss one important event that has impacted a procedure, technique or understanding.
5. Draw a timeline which depicts your discussion from points 1 to 4.

(Please refer to the example of a Timeline on the Moodle Site. However, this is not expected to be the only way in which a timeline can be presented. The timeline design is completely up to each individual student, and you should feel free to be as creative as you would like with it.)

For this assessment item you might like to search the CQUni Library for Journal Review Articles or Books in your chosen discipline. Sometimes they start with an 'historical' review. This, however, should not be directly copied, but the ideas mentally 'digested' and then the assignment is written in your own words. The sources used need to also be referenced.

#### Assessment Due Date

Week 6 Friday (21 Apr 2017) 5:00 pm AEST

#### Return Date to Students

Week 9 Friday (12 May 2017)

#### Weighting

30%

#### Minimum mark or grade

You are required to obtain at least 50% of allocated marks for this assessment task, in order to pass the course.

#### Assessment Criteria

1. Discuss what procedures were available/conducted from 1900's to the present regarding one of the following specialisation areas: nutrition; clinical measurements; pathology; or biotechnology. (Content 4 marks)
  2. What persons performed these procedures (were they specialists or general scientist/doctors/nurses etc.) (Content 4 marks)
  3. Impact of technology advancement on procedures and processes. (Content 4 marks)
  4. Discuss one important event that has impacted a procedure, technique or understanding. (Content 4 marks)
  5. Draw a timeline which depicts your discussion from points 1 to 4. (Quality/Clarity of figure 4 marks)
- Quality of Title for written assignment, scientifically worded and concise (1 mark)  
Referencing, Harvard Style, including accurate citations and reference list; minimum of three referencs used. (3 marks)  
Organisation, as a scientific communication (3 marks)  
Spelling and grammar accuracy (3 marks)

TOTAL: 30 MARKS.

### Referencing Style

- [Harvard \(author-date\)](#)

### Submission

Online

### Submission Instructions

You must submit this assessment via the ASSESSMENT block on the course Moodle site.

### Learning Outcomes Assessed

- Illustrate the application of medical sciences in modern healthcare.
- Outline the standards of practice in medical sciences.

### Graduate Attributes

- Communication
- Information Literacy
- Information Technology Competence
- Ethical practice

## 2 Assessment item 2: Group Activity Poster (Obesity's impact on modern healthcare)

### Assessment Type

Written Assessment

### Task Description

This Assessment Item is a group exercise to produce a poster using PowerPoint, on the topic of medical examination of OBESITY in a person. A group exercise is important for developing skills for a key CQUni Graduate Attribute of Teamwork. You will work in groups of five or six students to produce the poster. Students will be allocated to groups randomly, following census date in Week 4. Each group will be allocated a workspace to communicate on the unit Moodle site. Your group will look at the assessment and treatment plan for an obese person from the perspectives of each of the specialisations of Pathology, Clinical Measurements and Nutrition. If there are one or more students in a group whose focus is on Biotechnology, this specialisation may also be included.

Poster templates can be found by a search on PowerPoint but you are not limited to this source. One of these PowerPoint poster templates is also provided under the Week 6 link on Moodle. There are no specific word limits for the poster, however, the poster should be all on one landscape page and be clearly laid out. Include your names under the title as the authors of the poster. You can use smaller print for the names to save space if you wish. One or more figures are encouraged to attract reader interest. However, do not include so many figures there is insufficient room left for fully covering the topic in text.

For a group assessment item first think about and discuss how you will organise your group. Do you want to appoint a leader, or simply work together?

For a poster, each section has to be concise and to the point, clearly covering the main aspects in the space available. Each section related to the three or four specialisations should be roughly of the same length.

One possible suggestion of how to approach this as a group exercise is:

Student 1: Prepare Title and Introduction. This might need to be done last, to be fully aware of the content covered.

Student 2: Write about the Pathology perspective. For example, what pathology tests might be done on an obese patient and why?

Student 3: Write a section about what Clinical Measurements might be diagnostic, or associated with an obese patient, to identify/confirm any problems.

Student 4: Write a section about the Nutrition approach to obesity by way of testing procedures and how general advice might be dispensed.

Student 5: Sum up the findings briefly in a conclusion. You should integrate the findings from each section in the conclusion so it is cohesive.

If there is a sixth student in a group, they could possibly be involved in putting the sections together and proof reading the document.

Font size and type is left up to the group, but ensure the font is not distracting and also would be large enough to read easily should the poster be printed.

All references used should be listed at the end in Harvard style. For in-text citations use a superscript number that matches the ordered reference number in the reference list. For a poster, number superscripts are less distracting than full written citations as would be required in a report. A smaller font may be used for the reference list to conserve space.



**Assessment Due Date**

Week 11 Friday (26 May 2017) 5:00 pm AEST

**Return Date to Students**

Exam Week Friday (16 June 2017)

**Weighting**

40%

**Minimum mark or grade**

You are required to obtain at least 50% of allocated marks for this assessment task, in order to pass the course.

**Assessment Criteria**

Overall effectiveness of the poster including use of figures, 5 marks

Coverage of each of the three or four specialisations (content), 15 marks

Introduction and Conclusions (integrated in regard the different specialisations), 10 marks

Writing style, spelling, grammar, 5 marks

Referencing (quality and accuracy); minimum of three references used, 5 marks

**Referencing Style**

- [Harvard \(author-date\)](#)

**Submission**

Online

**Submission Instructions**

One student per group must submit this assessment via the ASSESSMENT block on the course Moodle site.

**Learning Outcomes Assessed**

- Understand investigative procedures used in medical sciences.
- Understand key roles of each discipline in medical sciences.
- Understand professional practice in medical sciences.

**Graduate Attributes**

- Communication
- Critical Thinking
- Team Work
- Information Technology Competence

### 3 Assessment item 3: Online quiz covering Residential School material/activities

**Assessment Type**

On-campus Activity

**Task Description**

You are required to complete an online quiz on the Moodle Unit site to assess your knowledge and understanding of learning material covered during the Residential School. The quiz will be opened the day after the Residential School (17 th May, 2017, 6.00 a.m. EST), and closed a week later (24 th May, 2017, 11.55 p.m. EST). You will be permitted only ONE attempt at the quiz. You will have 60 minutes to complete the quiz, which will consist of 30 multiple choice questions. The quiz is 'open book' so you can apply any notes you have recorded or were provided with at the Residential School.

**Assessment Due Date**

The quiz will be opened the day after the Residential School (17 th May, 2017, 6 a.m. EST), and closed a week later (24 th May, 2017, 11.55 p.m. EST).

**Return Date to Students**

Marks will be available within 1 week of the quiz closing.

**Weighting**

30%

**Minimum mark or grade**

You are required to obtain at least 50% of allocated marks for this assessment task, in order to pass the course.

**Assessment Criteria**

Results and correct answers to the quiz questions will be available within one week after the quiz has closed.

Quiz questions will have definitive 'right' or 'wrong' answers. 1 mark will be awarded for each correct answer. Negative

marking will NOT apply.

### **Referencing Style**

- [Harvard \(author-date\)](#)

### **Submission**

Online

### **Submission Instructions**

You will access the quizzes via the related link in the ASSESSMENT block on the course Moodle site.

### **Learning Outcomes Assessed**

- Outline the standards of practice in medical sciences.
- Understand investigative procedures used in medical sciences.

### **Graduate Attributes**

- Problem Solving
- Critical Thinking
- Information Literacy

## 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