



# BMSC11003 *Introduction to Medical Sciences*

## Term 1 - 2018

Profile information current as at 02/05/2024 07:37 pm

All details in this unit profile for BMSC11003 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

This unit provides an introduction to the medical science specialisations of medical laboratory science, 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 - 2018

- Mixed Mode
- 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: 50%

#### 2. **Group Work**

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 Unit Evaluations

##### **Feedback**

Despite a written introduction to each activity in the Residential School Manual, and the new manual being made available on the Moodle site well before the residential school, a number of students indicated they would like more verbal explanations before they undertake an activity.

##### **Recommendation**

Before the start of each activity a brief verbal explanation could be provided by the supervisor or demonstrator, with an opportunity for questions.

#### Feedback from Unit Evaluations

##### **Feedback**

Students were pleased with the prompt return of marked assessment items and the feedback.

##### **Recommendation**

Continue with prompt return of marked assessment items with useful feedback.

#### Feedback from Discussion with students; Assessment Committee discussion

##### **Feedback**

The question was raised about the degree of contribution of each student in a group work assessment item.

##### **Recommendation**

If a group assessment item is to be used again next year the Unit Coordinator could consider incorporating a system where students anonymously peer review the degree of contribution of other students in the group.

## Unit Learning Outcomes

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

1. Relate historical evidence and global perspectives to the application of medical science in modern healthcare
2. Evaluate standards of professional practice in medical science
3. Perform investigative procedures used in medical science
4. Develop communication skills used in professional practice.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes

 N/A Level	 Introductory Level	 Intermediate Level	 Graduate Level	 Professional Level	 Advanced Level
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### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Group Work - 50%	•	•	•	•
2 - Written Assessment - 50%		•		•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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 - Group Work - 50%	•			•		•	•	•		
2 - Written Assessment - 50%	•		•	•	•	•				

## Textbooks and Resources

### Textbooks

**There are no required textbooks.**

### 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: [Harvard \(author-date\)](#)  
For further information, see the Assessment Tasks.

## Teaching Contacts

**Rebecca Vella** Unit Coordinator  
[r.vella@cqu.edu.au](mailto:r.vella@cqu.edu.au)

## Schedule

### Week 1 - 05 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Infectious and non-infectious disease	Please note there is no prescribed textbook for this unit. All required readings and activities will be uploaded to the unit moodle page.	

### Week 2 - 12 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Communication skills for medical scientists - part 1		

### Week 3 - 19 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Communication skills for medical scientists - part 2		

### Week 4 - 26 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Ethical practice in medical sciences		

### Week 5 - 02 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
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Health and safety in medical sciences

Students are required to nominate which residential school they will be attending and what disease they would like to report on for assessment 2 by 1700 AEST on Friday the 6th of April 2018. For more information about how to nominate a residential school or a disease please see the unit moodle page.

**Assessment 1: Evaluating sources of information and understanding the fundamentals of ethical practice.** Due: Week 5 Friday (6 Apr 2018) 5:00 pm AEST

#### Vacation Week - 09 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
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#### Week 6 - 16 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Socioeconomic factors and their impact on health		

#### Week 7 - 23 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Genes and cellular biology, the underlying basis for disease - Part 1		

#### Week 8 - 30 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Genes and cellular biology, the underlying basis for disease - Part 2		

#### Week 9 - 07 May 2018

Module/Topic	Chapter	Events and Submissions/Topic
A day in the life of a medical scientist		Assessment item 2 Group work. Due: Week 9 (Tuesday 8 May 2018) 5:00 pm AEST for any students who completed residential school on Monday the 23rd and Tuesday the 24th of April.

#### Week 10 - 14 May 2018

Module/Topic	Chapter	Events and Submissions/Topic
Work integrated learning		

#### Week 11 - 21 May 2018

Module/Topic	Chapter	Events and Submissions/Topic
Planning your study load		

#### Week 12 - 28 May 2018

Module/Topic	Chapter	Events and Submissions/Topic
No lectures this week - you are to complete any outstanding work for this unit and any others you are enrolled in.		Assessment item 2 Group work. Due: Week 12 (Tuesday 29 May 2018) 5:00 pm AEST for any students who completed residential school on Monday the 14th and Tuesday the 15th of May.

#### Review/Exam Week - 04 Jun 2018

Module/Topic	Chapter	Events and Submissions/Topic
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No lectures this week - you are to complete any outstanding work for this unit and any others you are enrolled in.

### Exam Week - 11 Jun 2018

Module/Topic	Chapter	Events and Submissions/Topic
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No lectures this week - you are to complete any outstanding work for this unit and any others you are enrolled in.		
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## Term Specific Information

Please note the following two points -

There are no prescribed textbooks for this unit - all of the weekly readings and activities will be uploaded to the unit moodle site.

There is a compulsory residential school associated with this unit and with assessment item 2. You must register which residential school dates you will be attending prior to showing up. Students who show up to a residential school without registering into these sessions will not be guaranteed entry (if the residential school is at capacity, students who have not registered will be turned away for safety reasons). To ensure you can secure your preferred attendance dates it is recommended you register into a residential school session at the start of term. More information about registering into residential schools can be found on the moodle site under the "essential information" tab. Please note that registering for residential school is different to enrolling into this unit. Enrolling into the unit means you have nominated to study this content. Registering for a residential school can only happen after enrollment has occurred and is when you nominate what days you will undertake the laboratory component associated with this unit.

## Assessment Tasks

### 1 Assessment 1: Evaluating sources of information and understanding the fundamentals of ethical practice.

#### Assessment Type

Written Assessment

#### Task Description

In your professional role as a medical scientist, you will spend considerable time evaluating sources of information and making ethical choices. This assessment task is designed to enable you to begin developing evaluation skills and professional codes of ethics.

This task is a written assignment which will enable you to demonstrate your understanding of different forms of communication in the medical sciences and also allow you to identify what constitutes standards of ethical practice. You are to complete Part A to D of this assessment.

*Part A)* Listed below are two sources of information on the sexually transmitted disease, syphilis. One of these information sources is a peer reviewed journal article and the other is a publicly available website. You are to read both documents and in no more than 500 words, compare and contrast the format, style, content, and intended audience of these sources of information.

When compiling your response you need to provide justification for your points of similarity or difference. For example, if you were to say “the peer reviewed publication is a more reputable sources of information”, you would need to justify this comment by using examples from either or both of the documents as to why you feel this is the case. You may choose to present your responses to part A as dot points or in a table, if you feel this helps with making your communication more succinct. Sentences and paragraphs are also acceptable ways to present your response. You do not need to insert any references in your response to part A.

Peer review source of information

Source - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4999316/?report=printable>

Non-peer reviewed source of information

Source - <https://www.webmd.com/sexual-conditions/syphilis#1>

*Part B)* In no more than 200 words, explain why peer reviewed journal articles are a preferred source of information in comparison to publicly available websites (for example – Wikipedia, webMD, livestrong) when preparing assessments and other scholarly documents. You should present this response as full sentences. Dot points and tables are not acceptable presentation styles when answering this question. You do not need to insert any references in your response to part B.

*Part C)* In no more than 200 words, explain the differences and similarities between primary and secondary literature. Provide by way of references, one example of a primary journal article and one secondary journal article. Ensure the references you provide are presented in the Harvard format. It is not suitable to use any of the given information sources (either those given in Part A of this assessment or those contained on the unit moodle page / in lecture slides) as your examples. You must find your own examples of primary and secondary literature when responding to this question.

*Part D)* The Tuskegee syphilis study was an infamous clinical study conducted between 1932 and 1972 by the U.S. Public Health Service. The study involved monitoring the natural progression of untreated syphilis in African-American men who were under the guise they were receiving free health care from the government. In your own words identify the unethical issues associated with this study, the impact it had on the participants and the long term impact it has had on the participation of African-American people in medical research. Your response should be no more than 750 words, written in full sentences / paragraphs and reference a minimum of 3 peer-reviewed journal articles. Make sure to include a full reference list at the end of your response. The reference list is not included in the word count. Also note that, whilst a discussion about the Tuskegee study was presented during lectures, it is advisable you undertake further review of literature on this topic before compiling your response so you are fully informed of details and events which are associated with this study.

#### **Assessment Due Date**

Week 5 Friday (6 Apr 2018) 5:00 pm AEST



Students are required to upload their assessments to the moodle page prior to the submission deadline. Submission of work after this deadline will incur a 5% penalty per day or part thereof.

### **Return Date to Students**

Week 7 Friday (27 Apr 2018)

Feedback for this assessment task will be uploaded to the moodle page.

### **Weighting**

50%

### **Minimum mark or grade**

50%

### **Assessment Criteria**

A detailed criteria sheet can be found on the unit moodle page, however assessment will be based on knowledge of theory, rationalization and justification of your arguments/ideas, presentation and referencing.

The division of marks for each question on this assessment is as follows:

- Part A 20%
- Part B 20%
- Part C 20%
- Part D 30%
- Spelling / grammar and presentation 10%

### **Referencing Style**

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

### **Submission**

Online

### **Submission Instructions**

Submissions are to be in word format.

### **Learning Outcomes Assessed**

- Evaluate standards of professional practice in medical science
- Develop communication skills used in professional practice.

### **Graduate Attributes**

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

## **2 Assessment 2: Group work**

### **Assessment Type**

Group Work

### **Task Description**

This task is a written, group work assignment centred on one of the following diseases – asthma, type 2 diabetes mellitus, tuberculosis or hepatitis B. There are four parts to this assessment (Part A to D). Working in small groups, you are to provide responses for both Part A and Part B as they relate to your chosen disease and submit one completed copy of your lab manual as Part C. Part D is completed individually and allows you the opportunity to evaluate the contribution made by each group member towards your final submission. More detailed information about the requirements for each part are outlined below.

The groups will be assigned by the unit coordinator, however in doing so, consideration will be given for what disease you wish to report on. You can specify what disease you wish to report on before the allocation of groups has been made by completing the survey located on the unit moodle site (the survey can be located under “Essential information” tab). You have until 5:00pm AEST on Friday the 6<sup>th</sup> of April to specify what disease you wish to report on, after this time groups will be assigned. If you have not nominated which disease you wish to report on by the aforementioned deadline, you will be

randomly assigned one.

#### *Part A)*

In no more than 750 words, relate historical evidence and global perspectives to the diagnosis, treatment and management of your chosen disease. In completing part A you need to -

- Identify the medical professionals who were historically responsible for diagnosing, treating or managing this condition (were doctors the only ones responsible for this process or were other medical professionals also involved) and compare this to the people who are involved in the diagnosis, treatment or management of the condition today (are there new or emerging medical professions which assist in this process).
- Identify what impact the advancement of technology has had on procedures and processes used to diagnose, treat or manage this condition.
- Identify one important event that has impacted on diagnosing, treating or managing this condition.

#### *Part B)*

In no more than 500 words, outline how one of the following medical science disciplines - clinical measurement, medical laboratory sciences, nutrition or biotechnology, can assist in diagnosing, treating or managing your chosen disease. In completing part B you need to -

- Provide an overview of how one of the medical science disciplines can diagnose, treat or manage this condition.
- Provide a specific example of how one of the techniques or experiments performed at residential school can assist in the diagnosis, treatment or management of this condition.

#### *Part C)*

You are to submit a copy of the laboratory manual which contains your results, answers and calculations from residential school. You may choose to submit a scanned copy of your laboratory manual with handwritten responses or a copy which contains typed responses. Please note there are two copies of the laboratory manual uploaded to the unit moodle page. One copy contains background information, instructions, questions and spaces for answers/responses for each practical, the second only contains the questions and spaces for answers/responses. To reduce the size of the files being submitted you should submit the second version of the laboratory manual (the one which only contains the questions and answers).

#### *Part D)*

You are required to provide feedback on the contribution each group member made during the preparation and submission of your assessment. You will assess your fellow group members based upon attitude and willingness to contribute to the groups goal, timeliness in completing the nominated tasks and quality of the work they delivered. You will provide feedback using an online system and links to this activity can be found under the "Essential information" tab on the unit moodle page. As you will need to submit your assessment before evaluating your group members contribution, Part D is to be completed no later than one week after the submission date for Parts A to C.

#### *Important considerations when preparing and submitting your assessment -*

- Groups will be assigned by the unit coordinator. Students will be assigned to a group based upon the residential school they attend and the disease they wish to report on. More information about nominating a residential school and disease is available on the unit moodle page under the "essential information" tab.

- Your responses to part A and part B should be written as full sentences and paragraphs. Dot points are not an acceptable format when providing these responses.
- As this is a group assessment item, only one person within your team needs to submit Part A to C on behalf of everyone. However all group members should list their name and student number at the top of the first page, along with which disease you have chosen to report on. You may find it useful to present this information in a table like the one below. It should also be noted that only one copy of the laboratory manual needs to be submitted for this task. The responses to Part A, Part B and Part C (answers to the laboratory activities) should be submitted by the same group member.
- Part D is to be completed individually and all group members are required to provide feedback.

	First name	Last name	Student number
Group member 1			
Group member 2			
Group member 3			
Group member 4			
Disease this assessment is based upon			

### Assessment Due Date

This assessment is due two weeks after attending residential school (for those students who attend residential school on Monday the 23rd and Tuesday the 24th of April, you must submit your work by 5:00pm AEST Tuesday the 8th of May, for those students who attend residential school on Monday the 14th and Tuesday the 15th of May you must submit your work by 5:00pm AEST Tuesday the 29th of May). Submission of work after these deadlines will incur a 5% penalty per day or part thereof.

### Return Date to Students

Feedback for this assessment task will be uploaded to the moodle page, on certification of grades.

### Weighting

50%

### Minimum mark or grade

50%

### Assessment Criteria

A detailed criteria sheet can be found on the unit moodle page, however assessment will be based on knowledge of theory, rationalization and justification of your arguments/ideas, presentation, referencing and correctness of calculations. Your fellow group members

The division of marks for each questions / criteria on this assessment is as follows:

- Part A 20%
- Part B 20%
- Part C 48%
- Part D 12%

### Referencing Style

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

### Submission

Online Group

### Submission Instructions

Submissions are to be in word format. One group member is to submit the assessment on behalf of all members.

### Learning Outcomes Assessed

- Relate historical evidence and global perspectives to the application of medical science in modern healthcare
- Evaluate standards of professional practice in medical science
- Perform investigative procedures used in medical science
- Develop communication skills used in professional practice.

## Graduate Attributes

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

## 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