



BMSC11003 *Introduction to Medical Sciences*

Term 1 - 2019

Profile information current as at 19/04/2024 09:04 am

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 Medical Laboratory Science and Medical Science including the majors of Biotechnology, Clinical Measurement, Nutrition and Pathology. An inter-disciplinary, integrated approach will be provided so that you will understand the interrelationships across disciplines and how each one is associated with clinical work, research and education. 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. Upon completion of this unit you will be able to demonstrate industry accepted communication strategies and fundamental laboratory skills as they relate to the medical sciences.

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 - 2019

- 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. **Portfolio**

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 Student feedback

Feedback

Students would appreciate having more time to complete some of the bigger/more involved practicals during the residential school

Recommendation

Staff will investigate ways to change the presentation of the residential school so that more time can be allocated to larger practicals.

Feedback from Student feedback

Feedback

Students felt the content presented was integral to their development as a medical scientist.

Recommendation

Continue presenting industry related content which is relevant for a career in the medical sciences.

Unit Learning Outcomes

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

1. Demonstrate communication skills used in medical science practice
2. Describe standards of practice and ethical principles in medical science
3. Report determinants of health and well-being across populations
4. Perform fundamental techniques and procedures used in medical science with analysis of outcomes.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

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

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Communication	•	•	•	

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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 - 50%	•		•	•		•		•		
2 - Portfolio - 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 styles below:

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

For further information, see the Assessment Tasks.

Teaching Contacts

Corine Ting Unit Coordinator
c.ting@cqu.edu.au

Schedule

Week 1 - 11 Mar 2019

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.	ZOOM tutorial on Assessment 1: Friday (15 March 2019) at 10am

Week 2 - 18 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Communication skills for medical scientists - part 1		ZOOM tutorial on Assessment 1: Friday (22 March 2019) at 10am

Week 3 - 25 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Communication skills for medical scientists - part 2		ZOOM tutorial on Assessment 1: Friday (29 March 2019) at 10am

Week 4 - 01 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Ethical practice in medical sciences		ZOOM tutorial on Assessment 1: Friday (5 April 2019) at 10am

Week 5 - 08 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Health and safety in medical sciences		Students are required to nominate which residential school they will be attending on Week 5 Friday (12 April 2019) 5:00 pm AEST. For more information about how to nominate a residential school please see the unit Moodle page. ZOOM tutorial on Assessment 2: Friday (12 April 2019) at 10am Assessment 1: Evaluating sources of information and understanding the fundamentals of ethical practice. Due: Week 5 Friday (12 Apr 2019) 5:00 pm AEST

Vacation Week - 15 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 22 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Socioeconomic factors and their impact on health		ZOOM tutorial on Assessment 2: Friday (26 April 2019) at 10am

Week 7 - 29 Apr 2019

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

ZOOM tutorial on Assessment 2: Friday (3 May 2019) at 10am

Week 8 - 06 May 2019

Module/Topic

Chapter

Events and Submissions/Topic

Genes and cellular biology, the underlying basis for disease - Part 2

Residential School Option A: 11 - 12 May 2019

Week 9 - 13 May 2019

Module/Topic

Chapter

Events and Submissions/Topic

A day in the life of a medical scientist

Residential School Option B: 14 - 15 May 2019

Week 10 - 20 May 2019

Module/Topic

Chapter

Events and Submissions/Topic

Work integrated learning

ZOOM tutorial on Assessment 2: Friday (24 May 2019) at 10am

Week 11 - 27 May 2019

Module/Topic

Chapter

Events and Submissions/Topic

Planning your study load

Assessment 2: Linking Theory to Practice in the Medical Sciences.
Due: Week 11 Friday (31 May 2019) 5:00 pm AEST

Week 12 - 03 Jun 2019

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.

Review/Exam Week - 10 Jun 2019

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.

Exam Week - 17 Jun 2019

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.

Term Specific Information

The unit coordinator for BMSC11003 Introduction to Medical Science is Corine Ting and she is best contacted by email at c.ting@cqu.edu.au.

The following discipline leads will also participate in forum discussions and residential school demonstration:

Clinical Measurement: Dr Sonia Saluja (s.saluja@cqu.edu.au)

Pathology: Mr Wayne Pederick (w.pederick@cqu.edu.au)

Nutrition: Dr Saman Khalesi (s.khalesi@cqu.edu.au)

Biotechnology: Dr Paul Neilsen (p.neilsen@cqu.edu.au)

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 2-days residential school associated with this unit and with Assessment 2. The scheduled residential school dates are 11th to 12th May 2019 (Residential School Option A) OR 14th to 15th May 2019 (Residential School Option B). You are required to attend either Option A or Option B. 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. 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 enrolment 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 source 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 (12 Apr 2019) 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 (3 May 2019)

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

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

Submission

Online

Submission Instructions

Submissions is to be in Word format.

Learning Outcomes Assessed

- Demonstrate communication skills used in medical science practice
- Describe standards of practice and ethical principles in medical science

Graduate Attributes

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

2 Assessment 2: Linking Theory to Practice in the Medical Sciences.

Assessment Type

Portfolio

Task Description

Throughout this unit, you will gain a basic understanding of the diverse roles of a medical scientist. This understanding will be put in context in a practical environment during your residential school. As a future medical scientist, you will be expected to undertake various practical activities in your future workplace and will be required to consult a range of literature to help inform your conduct these practical aspects of your future job and interpret the findings.

In this assessment, you will be required to answer a series of questions that reflects upon several key aspects of the residential school. These questions will help you to link the theory from the lectures into the practical skills and techniques that you will conduct at the residential school. During this assessment, you will be required to report your results and findings from the residential school, reflect upon these findings and investigate additional literature to demonstrate a deep understanding of the strong links between the theoretical components that underpin these practical exercises.

You are to submit a copy of this assessment (of which the template will be provided to you on the Moodle site along with the laboratory manual) which contains your results, answers, calculations and interpretations from residential school along with answers to a series of questions that relate to the practical techniques conducted. Accurate and comprehensive answers to these questions will require you to have a clear understanding of the teaching materials presented in this unit and also may require you to perform additional research using existing literature on the topic. Please note that the laboratory manual uploaded to the unit Moodle page will also contain background information related to these techniques and instructions to complete the practical tasks. The assessment template will also be provided on the Moodle site and will include spaces for answers/responses for each practical, interpretation of these results and a series of questions related to the experimental technique. You are only required to submit the assessment answer sheet and not the original laboratory manual.

Assessment Due Date

Week 11 Friday (31 May 2019) 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 there of.

Return Date to Students

Review/Exam Week Friday (14 June 2019)

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, referencing and correctness of calculations. Each section of the assessment will have a set allocation of marks provided and will be assessed in relation to:

- Accuracy of your answers
- Clarity of the presentation of your results
- Accurate interpretation of results
- Logical conclusions drawn from these results
- Supporting statements with literature (as appropriate) and accurate referencing styles
- Spelling and grammar

Referencing Style

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

Submission

Online

Submission Instructions

Submissions is to be in Word format.

Learning Outcomes Assessed

- Demonstrate communication skills used in medical science practice
- Describe standards of practice and ethical principles in medical science
- Report determinants of health and well-being across populations
- Perform fundamental techniques and procedures used in medical science with analysis of outcomes.

Graduate Attributes

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

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