BMSC11003 *Introduction to Medical Sciences*
Term 1 - 2020

Profile information current as at 20/04/2024 01:04 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.

Corrections

Unit Profile Correction added on 19-04-20
Residential school has been cancelled. Please see your Moodle site for details of the assessment linked to your Residential School.

Unit Profile Correction added on 19-04-20
Assessment 2 has now been changed to an alternate form of assessment. Please see your Moodle site for details of the assessment.

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 - 2020

- 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 appreciated being introduced to the specialisations within this course through clinical examples.

Recommendation
Continue with the delivery of clinically relevant content in the lectures and residential school.

Feedback from Student feedback

Feedback
Students appreciated the additional support from the weekly tutorial sessions.

Recommendation
Continue with the delivery of weekly tutorial sessions to engage with students.

Feedback from Student Feedback and Instructional Team

Feedback
Students found the structure of the weekly topics difficult to follow.

Recommendation
Introduce a new textbook to enhance the organisation of teaching content and improve the structure of the teaching topics.

Feedback from Peer review feedback

Feedback
Teaching content was not evenly distributed across all specialisations.

Recommendation
Refine weekly topics based on the newly introduced textbook to balance the teaching content across all specialisations.

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

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

Alignment of Assessment Tasks to Learning Outcomes

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

Assessment Tasks	Learning Outcomes			
	1	2	3	4
2 - Portfolio - 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 - 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

Jason Steel Unit Coordinator
j.steel@cqu.edu.au
Wayne Pederick Unit Coordinator
w.pederick@cqu.edu.au

Schedule

Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Communication and Ethics in Medical Science	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 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Health and Safety in Medical Sciences		

Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Biotechnology 1		

Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Biotechnology 2		

Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic

Pathology 1		Students are required to nominate which residential school they will be attending by Week 5 Thursday (9 April 2020) 5:00 pm AEST. For more information about how to nominate a residential school please see the unit Moodle page. **Assessment 1: Evaluating sources of information and understanding the fundamentals of ethical practice.** Due: Week 5 Thursday (9 Apr 2020) 5:00 pm AEST
Vacation Week - 13 Apr 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Self directed study		
Week 6 - 20 Apr 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Pathology 2		
Week 7 - 27 Apr 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Clinical Measurements 1		
Week 8 - 04 May 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Work Integrated Learning and Planning Your Study Load.		**Residential School Option A:** 5 - 6 May 2020
Week 9 - 11 May 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Socioeconomic Factors and Their Impact on Health		**Residential School Option B**: 12 - 13 May 2020
Week 10 - 18 May 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Clinical Measurements 2		
Week 11 - 25 May 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Nutrition 1		
Week 12 - 01 Jun 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Nutrition 2		**Assessment 2: Linking Theory to Practice in the Medical Sciences.** Due: Week 12 Friday (5 June 2020) 5:00 pm AEST

Term Specific Information

The unit coordinator for BMSC11003 Introduction to Medical Science is **Dr Jason Steel** and he is best contacted by email at j.steel@cqu.edu.au
The lectures for this unit will be provided by:

- Dr Jason Steel- Communication and ethics in medical sciences, Biotechnology 1 & 2
- Dr Charmaine Ramlogan-Steel- Health and safety in medical science
- Ms Ingrid Christiansen- Pathology 1 & 2
- Dr Candice Pullen- Clinical Measurements
- Dr Saman Khalesi Taharoom- Nutrition 1 & 2

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-day residential school** associated with this unit and with Assessment 2. The scheduled residential school dates are 5th to 6th May 2020 (Residential School Option A) OR 12th to 13th May 2020 (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. Once enrolled in the unit, you will then choose which res school you will attend. Residential school is where you will undertake the laboratory component associated with the 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/medical laboratory 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 into the death of Jesse Gelsinger during a Phase I clinical trial using gene therapy. One of these information sources is a peer reviewed journal article and the other is a from a publicly available newspaper/website. You are to read both documents and in no more than 500 words, identify which article is which and then compare and contrast the format, style, content, and intended audience of these sources of information.
Article 1
Article 2
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.
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.

You should present this response as full sentences. Provide by way of references (ie in-text citations and a reference list), one example of a primary journal article and one secondary journal article. Ensure the references you provide are presented in the Harvard or APA 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 articles in *Part A* describe what is arguably the most famous conflict of interest case in clinical medicine. The ramifications of this death not only put gene therapy research back a decade but also delayed FDA approval for vial gene based treatments. 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 biotechnology and 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 in-text citations and a full reference list at the end of your response. The reference list is not included in the word count. Also note that, you should complete a 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 Thursday (9 Apr 2020) 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

Feedback for this assessment task will be given within 2 weeks from the submission date.

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 or PDF

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 form 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 12 Friday (5 June 2020) 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

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 or PDF.

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