MEDS21003 *Medical Science Research Project 1*
Term 1 - 2020

All details in this unit profile for MEDS21003 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 is a postgraduate unit which aims to provide you with training in research. You will be taught the foundation skills and knowledge to independently undertake an investigation of a research question in an area of medical science. This research question will be fully researched and reported in written scholarly form in Medical Science Research Project 2. The research question will be of significance to an area of medical science related to your course of enrolment and your investigation will be undertaken with principal supervision from a member of that course's staff.

Details
Career Level: *Postgraduate*
Unit Level: *Level 8*
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

- Online

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).

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 Postgraduate 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: 70%

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 Have Your Say

Feedback

Students appreciated prompt response to queries via email.

Recommendation

Continue communication with students via regular emails.

Feedback from Have Your Say

Feedback

Students really liked having assigned mentors to provide feedback and mark their work.

Recommendation

Continue the practise of having the same tutor provide the feedback and mark the assessment item.

Feedback from Have Your Say

Feedback

Some students would like assessment 1 due earlier in the term so they have more time to work with the feedback they received to complete assessment 2.

Recommendation

Review unit content and alignment of learning material to explore possibility of moving assessment 1 due date to earlier in the term.

Unit Learning Outcomes

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

1. Formulate a research question and specific hypotheses
2. Search, analyse and critically appraise data or textual information
3. Apply suitable bioethical principles to the proposal.

The purpose of Medical Science Research Projects 1 & 2 is to provide the student with training in developing, conducting, and communicating research across theoretical and applied domains. This requires students to undertake an investigation of a research question in an area of medical science aligned with their course of enrolment and to report the investigation in written scholarly form. The research question to be investigated may have either theoretical or applied significance but will add to the body of discipline-specific knowledge and meet the performance criteria for the engaged research element of the appropriate professional competency standards.

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
1 - Written Assessment - 30%	•	•	•
2 - Written Assessment - 70%	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes		
	1	2	3
1 - Knowledge	◦	◦	◦
2 - Communication	◦	◦	◦
3 - Cognitive, technical and creative skills		◦	
4 - Research	◦	◦	◦
5 - Self-management	◦	◦	◦
6 - Ethical and Professional Responsibility			◦
7 - Leadership	◦		
8 - 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
1 - Written Assessment - 30%	◦	◦	◦	◦	◦	◦	◦	
2 - Written Assessment - 70%	◦	◦	◦	◦	◦	◦	◦	

Textbooks and Resources

Textbooks
MEDS21003

Prescribed

Research Methodology A Step-by-Step Guide for Beginners
Edition: 5th (2019)
Authors: Ranjit Kumar
Sage Publications
Samsung Hub , Singapore , Republic of Singapore
ISBN: 978-1-5264-4989-4
Binding: Paperback

Additional Textbook Information
Paper copies are available for purchase at the CQUni Bookshop here: http://bookshop.cqu.edu.au (search on the Unit code)

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

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

Referencing Style

All submissions for this unit must use the referencing style: Vancouver
For further information, see the Assessment Tasks.

Teaching Contacts

Ann Quinton Unit Coordinator
a.quinton@cqu.edu.au

Schedule

Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Review of research basics • Definition of research • Research paradigms • Research process • Rationale for conducting research in the health sciences • How to search the literature • Finding and choosing keywords • Use of Critical Appraisal Tools (CATs) and Risk of Bias (ROB) tools	Chapters are from the textbook: Research Methodology, A step-by-step guide for beginners. 5th Ed. Kumar, R. Sage Publications: London. **Chapters 1 and 2** Lecture/s Lecture notes	Zoom tutorial Tuesday night 7.00-8.00pm AEST

Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic

Finding a research topic and question
• Identify a relevant research topic/focus
• Formulating a research question/problem using PICO (Participant/Intervention/Comparison/Outcome)
• Planning the research
• Reviewing the literature and writing a literature review

Chapters 3 and 4
Lecture/s
Lecture notes

Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Determining your research design and basic statistics 1 • Variables • Measurement scales • Constructing hypotheses • Type 1 and 2 errors • Sample size	**Chapters 5, 6 and 7** Lecture/s Lecture notes.	Tutorial Tuesday night 7.00-8.00pm AEST

Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Selecting a study design • Quantitative research • Qualitative research • Mixed methods • Sampling	**Chapter 8** Lecture/s Lecture notes	

Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Selecting a method of data collection. 1. Primary sources • observation • interview • questionnaires 2. Secondary sources 3. Collecting data using attitudinal scales	**Chapters 9 and 10** Lecture/s Lecture notes	Tutorial Tuesday night 7.00-8.00pm AEST **Written Assessment 1-Draft of Research Proposal** Due: Week 5 Thursday (9 Apr 2020) 4:00 pm AEST

Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Break week		

Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Selecting a sample • validity • reliability • bias • time frame • budget constraints	**Chapters 11 and 12** Lecture/s Lecture notes	

Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Basic statistics 2 for research proposals • parametric statistics • non-parametric statistics • sensitivity and specificity • risk • qualitative data analysis	Lecture/s Lecture notes.	Tutorial Tuesday night 7.00-8.00pm AEST

Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Ethics • Bioethical issues • participant information sheet • consent form • risk appraisal • recruitment • information protection • dissemination of results	**Chapter 14** Lecture/s Lecture notes.	

Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Ethics • Guidelines for ethical conduct in Aboriginal and Torres Strait Island Peoples health research	Lecture/s Lecture notes.	Tutorial Tuesday night 7.00-8.00pm

Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Communicating the results • developing and using tables • answering the clinical question	**Chapter 13 and 16**	

Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Time to finish writing your research proposal		Tutorial Tuesday night 7.00-8.00pm

Week 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
Assessment 2 due		**Written Assessment 2-Course Work Ethics Application** Due: Week 12 Monday (1 June 2020) 4:00 pm AEST

Review/Exam Week - 08 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 15 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

The unit coordinator is Dr Ann Quinton (Sydney). The best way to contact Ann is via email at:
a.quinton@cqu.edu.au
It is important to check your student email regularly as updates about the unit will be sent from the unit coordinator by email. Please ensure email correspondence is done via your CQU student email.
Ann's phone number is 02 93245008 however she is often in the sonography labs so an email is the best way to organise a time to speak.
This unit is a 6 credit point unit which requires you to allocate around 12 hours per week for study. The unit is graded. There are two assessment items, a draft proposal worth 30% where feedback will be provided to enable you to produce the final CQU Coursework Ethics application which is worth 70%.
Tutorials will be offered in the evening to enable students on clinical placement or working to attend. You will be able to ask questions, gain feedback and join in discussions on how to best complete the assessment tasks. This unit will make regular use of the required text: Research Methodology, a step-by-step guide for beginners (5th Ed.) by Ranjit Kumar. Sage Publications.

Assessment Tasks

1 Written Assessment 1-Draft of Research Proposal

Assessment Type
Written Assessment

Task Description

The first written assessment is a draft of your final research proposal. As a draft the main aims are for you to learn how to search and review the literature, start thinking about your research topic, your research question, how you will go about answering your research question (methodology) and start thinking about the risk level of your research project. The draft will also provide you with the opportunity to gain feedback so you can complete the CQU Course Work Ethics Application (assessment 2). A research proposal is a detailed written outline of planned research that allows you, the researcher to clarify and organise your thoughts on your research. It includes the study aims (research question/s) and hypothesis, a brief literature review (as compared to a detailed literature review which would be required for the research paper or thesis) that critiques the literature and allows you to identify a gap in knowledge that you wish to research, project plan which considers research methodology, study design, selection criteria, data collection, statistical analysis and ethical considerations.

The content of the draft proposal is 1000 words ±10% (excludes references, the Ethics Checklist and the full text articles (the full text articles will be uploaded separately).

The content of the proposal will include:

1. Proposed title.
2. Keywords (3-5).
3. Background. You will write the draft proposal which will include an outline of the background to your research and how your reading of these articles has established the need for further research. The literature should also help inform your research question and methodology.
4. Research question/aim.
5. How you will go about answering your research question. This means writing an outline of the research design and plan (methodology).
6. Fill out and insert the Ethics Checklist (which can be found on the unit Moodle site) into your word document, and use this to decide the risk level of your application. Include a section in your research design and plan (one to three sentences) about whether the proposal is low or high risk and why.
7. Insert your reference list into the word document.
8. Upload at least 3-5 relevant full text articles (appendix).

Further detailed information on how to complete the task is provided to you under the assessment tab in Moodle.

Assessment Due Date
Week 5 Thursday (9 Apr 2020) 4:00 pm AEST
Online submission via the unit Moodle site.

Return Date to Students
Week 6 Thursday (23 Apr 2020)

Weighting
30%

Assessment Criteria

The criteria to receive a Pass are as follows:

- The title should be clear and concise, reflect the topic and engage the reader.
- Keywords should reflect the topic.
- The outline of the background to your research and need for further research are clearly discussed.
- The research question clearly identifies a population or problem or issue of interest and a proposed outcome or measure and relates to the title.
- An outline of the research design and plan is relevant to the title and aim, operational in nature and clearly explained, and establishes the need for research in the chosen area.
- Consideration of risk level is clearly stated in the research plan.

- Ethics Checklist is completed and document uploaded.
- 3-5 full-text up-to-date relevant PDF file articles are uploaded.
- In-text referencing is correctly and appropriately used and reference list supplied.
- Sustained academic voice and appropriate plain English research language used.
- Correct spelling and grammar.
- The word limit is adhered to.

A marking rubric is available to students on the unit Moodle site.

Referencing Style

- [Vancouver](#)

Submission
Online

Submission Instructions
Please submit as a word document .doc or .docx

Learning Outcomes Assessed

- Formulate a research question and specific hypotheses.
- Search, analyse and critically appraise data or textual information.
- Apply suitable bioethical principles to the proposal.

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Self-management
- Ethical and Professional Responsibility
- Leadership

2 Written Assessment 2-Course Work Ethics Application

Assessment Type
Written Assessment

Task Description

In this assessment you will complete the CQU Coursework Ethics Application Form (Version 3). This is an authentic form of assessment as you will be able to submit your research proposal to the CQU Office of Research for ethics approval if you wish to do the research project. Your project should be at a level where there is potential for an academic publication to be produced.

The length of your research proposal will be 1800 words ± 10% (some of these sections involve ticking a "Yes/No" box). The word count excludes the reference list, Participant Information Sheet (PIS) and Consent Form, and any other necessary relevant attachments (eg online survey, interview questions, external approval).

The content of the proposal will include:

1. Project title and key words (3-5)
2. Data collection dates
3. Lay person description (250 words)
4. Research aim/s and significance, includes background and literature review
5. Data collection methods
6. Methods
7. Justification of research design (includes data analysis, sample size and statistical power if appropriate)
8. Risks (ethical considerations)
9. Location of research
10. Funding and finance
11. Recruitment of participants
12. Consent

13. Information protection
14. Dissemination of results
15. References (Vancouver style)
16. Appendices (PIS and Consent Form-compulsory), any other relevant attachments if applicable (for example online survey, interview questions, external approval forms)

Further detailed information on how to complete this task is provided to you throughout this unit and under the assessment tab in the unit Moodle site.

The CQU Coursework Ethics Application Form (Version 3) is used for low risk ethics applications. You do not need to submit the application if you do not intend performing the research. If your research proposal is considered high risk and you wish to perform the research, before you undertake your research you will need to complete a Human Research Ethics Application (HREA) https://hrea.gov.au/ which then goes before a full Human Research Ethics Committee (HREC). This process will take considerably longer to gain ethics approval. The information you put together for the low risk research proposal assignment will be able to be used in the HREA high risk application, however the HREA asks for more information. I would suggest you speak to your discipline specific supervisor if you need to go down this path to complete your research.

Assessment Due Date
Week 12 Monday (1 June 2020) 4:00 pm AEST
Online submission via the unit Moodle site

Return Date to Students
Exam Week Monday (15 June 2020)

Weighting
70%

Minimum mark or grade
50%

Assessment Criteria

The criteria to receive a pass are as follows:

- The research title should be clear, concise and reflect the topic. Keywords should reflect the topic.
- Lay person description is relevant, brief and avoids technical jargon.
- Research aim/s, significance, background to research, literature review and methodology are relevant with up-to-date literature from peer reviewed journals cited as evidence.
- Ethical considerations including risks, recruitment of participants, consent, information protection and dissemination of results are addressed and discussed.
- All sections of the Coursework Ethics Application are answered.
- Appropriate Participant Information Sheet, Consent Forms and other relevant documentation are included.
- In-text referencing is correctly and appropriately used and reference list supplied.
- Sustained academic voice and appropriate plain English research language used.
- Correct spelling and grammar.
- The word limit is adhered to.

A marking rubric is available to students on the unit Moodle site.

Referencing Style

- Vancouver

Submission
Online

Submission Instructions
Please submit as a word document .doc or .docx

Learning Outcomes Assessed

- Formulate a research question and specific hypotheses.
- Search, analyse and critically appraise data or textual information.

- Apply suitable bioethical principles to the proposal.

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Self-management
- Ethical and Professional Responsibility
- Leadership

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