



MEDS21003 *Medical Science Research Project 1*

Term 1 - 2017

Profile information current as at 06/05/2024 11:20 pm

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

The purpose of the Medical Science Research Project 1 unit is to provide you with training in research. You are required to independently undertake an investigation of a research question in an area of medical science. This research question will be fully investigated and reported in written scholarly form in the Medical Science Research Project 2 unit. The research question will be of significance to an area of medical science related to your course of enrolment and will be undertaken under the principal supervision of 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

Prerequisite EITHER Successful completion of: 48 units of credit of Level One Units AND 84 units of credit of Level Two or Level Three Units OR Enrollment in: CV83 Master of Medical Ultrasound OR CC70 Graduate Diploma of Paramedic Science (Critical Care) OR CC71 Master of Clinical Chiropractic CG91 Bachelor of Medical Sonography and Graduate Diploma of Medical Sonography CV69 Bachelor of Echocardiography (Cardiac Physiology) / Graduate Diploma of Echocardiography

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

Offerings For Term 1 - 2017

- Distance

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" course evaluation.

Feedback

Students felt there needed to be greater consistency between the multiple markers used in this course.

Recommendation

Jabber or Skype with the different markers will be used just before assessments are due to be marked to ensure there is agreement in marking and to iron out any issues.

Action

Email instructions and phone conversations were done by the unit coordinator to explain the assessment requirements and rubric. Moderation of 24% of work from different disciplines was done.

Feedback from "Have your say" course evaluation.

Feedback

Students felt better clarification about the assessment task and outline would be helpful. They also wanted more information on how to write a literature review.

Recommendation

The assessment task outline will be streamlined by requiring uploading of all the necessary documents as a single file. After working with the CQU Ethics Committee greater clarification about the requirements of their application has been achieved and these changes will be implemented. More information about how to write a literature review will be added to the Moodle course.

Action

The CQU HREC guidelines were published in mid 2016 providing more information for students on how to complete the low risk ethics application. This was added to the unit Moodle site. Information on writing a literature review was delivered to the students via zoom tutorials.

Feedback from "Have your say" course evaluation. Student emails.

Feedback

Students liked the prompt response to emails in relation to feedback on the assessment items.

Recommendation

Continue the practice of providing feedback regarding the progress of the assessment items via email.

Action

Prompt and detailed response to emails.

Feedback from "Have your say" course evaluation.

Feedback

Students liked the assessment tasks (completing a low risk ethics application) as it was practical, related to their future careers and gave them skills to contribute to scientific knowledge.

Recommendation

The same or similar assessment tasks will be set next year.

Action

The same tasks will be set next delivery.

Feedback from "Have your say" course evaluation.

Feedback

Some students did not like Blackboard Collaborate as a platform for tutorials as they felt it was outdated and made communication difficult.

Recommendation

Investigate other online platforms for tutorials.

Action

Zoom tutorials were implemented.

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: 4th Ed. (2014)

Authors: Kumar, Ranjit

Sage Publications

London , Great Britain

ISBN: 978-1-4462-6996-1

Binding: Paperback

Additional Textbook Information

This textbook can be used for both MEDS21003 and MEDS21006, Research Project 1 and 2.

[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: [American Psychological Association 6th Edition \(APA 6th edition\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Ann Quinton Unit Coordinator

a.quinton@cqu.edu.au

Schedule

Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
1. Review of research basics <ul style="list-style-type: none">• definition of research• research paradigms• research process• rationale for conducting research in the medical science	Chapters are from textbook: Research Methodology, A step-by-step guide for beginners. 4th Ed. Kumar, R. Sage Publications: London.	
2. Ethical considerations <ul style="list-style-type: none">• bioethical issues• guidelines for ethical conduct in Aboriginal and Torres Strait Island Peoples health research	Chapter 1 Chapter 14 Lecture/s Lecture notes	

Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Finding a research topic and question

- identify a relevant research topic/focus
- formulating a research question/problem
- planning the research
- reviewing the literature

Chapters 2, 3 and 4
Lecture/s
Lecture notes

Tutorial Tuesday night 14/3/17
7.00-8.00pm (QLD time),
8.00-9.00pm (Sydney and Melbourne time).

Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Determining your study design <ul style="list-style-type: none">• variables• measurement scales• constructing hypotheses• type 1 and 2 errors• what is a research proposal• writing a research proposal	Chapters 5, 6, 7 and 13. Lecture/s Lecture notes.	

Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Selecting a study design <ul style="list-style-type: none">• quantitative research• qualitative research• mixed methods	Chapter 8 Lecture/s Lecture notes.	Tutorial Tuesday night 28/3/17 7.00-8.00pm (QLD time), 8.00-9.00pm (Sydney and Melbourne time).

Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Draft of research proposal due on Friday of week 5		Written Assessment-draft of research proposal Due: Week 5 Friday (7 Apr 2017) 4:00 pm AEST

Vacation Week - 10 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Break week		

Week 6 - 17 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Selecting a method of data collection. 1. Primary sources: <ul style="list-style-type: none">• observation• interview• questionnaires 2. Secondary sources 3. Collecting data using attitudinal scales	Chapters 9 and 10 Lecture/s Lecture notes.	Tutorial Tuesday night 18/4/17 7.00-8.00pm.

Week 7 - 24 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Selecting a sample <ul style="list-style-type: none">• validity• reliability• bias• sample size• time frame• budget constraints Feedback on draft submission returned	Chapters 11 and 12 Lecture/s Lecture notes.	

Week 8 - 01 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Basic statistics for research proposals <ul style="list-style-type: none">• parametric• non-parametric	Lecture/s Lecture notes.	Tutorial Tuesday night 2/5/17 7.00-8.00pm

Week 9 - 08 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Ethics <ul style="list-style-type: none"> • participant information sheet • consent form • risk • recruitment • information protection • dissemination of results 	Lecture/s Lecture notes.	

Week 10 - 15 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Communicating the results Writing a literature review	Chapter 17 Lecture/s Lecture notes.	Tutorial Tuesday night 16/5/17 7.00-8.00pm

Week 11 - 22 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Final research proposal write up		Tutorial Tuesday night 23/5/17 7.00-8.00pm

Week 12 - 29 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Research proposal due Friday of week 12		Written Assessment-final Due: Week 12 Friday (2 June 2017) 4:00 pm AEST

Review/Exam Week - 05 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Exam Week - 12 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Term Specific Information

The unit coordinator for MEDS21003 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 via email.

Ann's phone number is 02 9324 5008 however she is often in labs so an email is the best way to organise a time to talk.

This unit is a 6 credit point unit which requires you to allocate around 12 hours per week towards it. This 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 research ethics application which is worth 70%.

Tutorials will be offered in the evening to enable students on clinical placements to attend. You will be able to ask questions, gain feedback and join in discussions on how best to complete the assessment tasks.

This unit will make regular use of the required text: Research Methodology, a step-by-step guide for beginners (4th Ed.) by Ranjit Kumar. Sage Publications.

Assessment Tasks

1 Written Assessment-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 and how you will go about answering your research question. The draft will also provide you with the opportunity to gain feedback. A

research proposal is a detailed written outline of planned research that allows the researcher to clarify and organise their thoughts on their 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), project plan which considers research methodology, study design, selection criteria, data collection, statistical analysis and ethical considerations.

The content of the draft proposal is 500 words $\pm 10\%$ (excludes references, the full text articles, and the CQU Human Research Ethics Committee Negligible and Low Risk Review Process and Application Form which will be appendices).

The content of the proposal will include:

1. Proposed title (15 words).
2. Keywords (3-5).
3. Background. Upload at least 3-5 full text articles (appendix). 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. Dot points are fine at this stage.
6. Upload CQU Human Research Ethics Committee Negligible and Low Risk Review Process and Application Form (OoR11-0025 HREC low risk application form-version5) (appendix) and use to decide if your application is considered low risk or not. Only fill in pages 3 & 4 at this stage. Include a sentence in your research design and plan about whether the proposal is low or high risk and why.

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

Assessment Due Date

Week 5 Friday (7 Apr 2017) 4:00 pm AEST

Online submission via the Moodle site

Return Date to Students

Week 7 Friday (28 Apr 2017)

Weighting

30%

Minimum mark or grade

You must achieve a minimum pass mark of 50% in this assessment task.

Assessment Criteria

The criteria to receive a Pass are as follows:

- The title should be clear and concise and engage the reader.
- Keywords should reflect the topic.
- 3-5 full-text (PDF files) up-to-date articles are uploaded.
- 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.
- An outline of the research design and plan is relevant to the aim, clearly explained and establishes the need for research in the chosen area.
- Consideration of risk level is clearly stated in the research plan.
- Pages 3 & 4 of the CQU low risk ethics clearance form are completed and document is 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

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

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-final

Assessment Type

Written Assessment

Task Description

In this assessment you will complete the "CQU Human Research Ethics Committee Negligible and Low Risk Review Process and Application Form" pages 6-12. 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.

The length of your research proposal will be 1800 words \pm 10% (some of these sections involve ticking a "Yes/No" box or answering "not applicable"). The word count excludes the reference list, Participant Information Sheet (PIS) and Consent Form.

The content of the proposal will include:

1. Research title (15 words) and key words (3-5)
2. Lay person description (200 words)
3. Research methodology (300 words)
4. Research aim/s and significance, includes background and literature review (800 words)
5. Risks (ethical considerations)
6. Recruitment of participants
7. Consent
8. Information protection
9. Dissemination of results (sections 5-9, 500 words)
10. References (numbered APA style)
11. Appendices (PIS and Consent Form)

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

If your research proposal is considered high risk, before you undertake your research you will need to complete a National Ethics Application Form (NEAF) <https://www.neaf.gov.au/> which then goes before a full Human Research Ethics Committee (HREC). This process will take considerably longer to gain ethical approval. The information you put together for the low risk research proposal assignment will be able to be used in the NEAF application, however the NEAF 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 Friday (2 June 2017) 4:00 pm AEST

Online submission via the Moodle site

Return Date to Students

Exam Week Friday (16 June 2017)

Weighting

70%

Minimum mark or grade

You must achieve a minimum pass mark of 50% in this assessment task.

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 methodology, aim/s, significance, background to research and literature review 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 Low Risk Ethics Application are answered.
- Appropriate Participant Information Sheet and Consent Forms 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

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

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