



MEDS21006 Medical Science Research Project 2

Term 2 - 2021

Profile information current as at 29/04/2024 08:52 am

All details in this unit profile for MEDS21006 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 2 unit is to provide you with further training in research as you continue projects begun in Medical Science Research Project 1. This unit requires you to independently report on the investigation of the research question proposed. The final journal paper will typically contain the data analyses, results, and discussion in addition to a cogent literature review and hypotheses. It is anticipated that some journal papers may be suitable for eventual publication in an appropriate journal with the academic involved named as co-author. In all stages of the project you must adhere to appropriate ethical and professional standards.

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 - MEDS21003 Medical Science Research Project 1

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 2 - 2021

- 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 survey

Feedback

Students found the Moodle site difficult to navigate compared to other pages

Recommendation

The Unit Coordinators will meet and discuss a way to improve the optics of the unit so that it may be less frustrating for students to navigate and appeal to the different disciplines that use this Moodle page

Feedback from Have Your Say survey

Feedback

Students appreciated the Unit Co-ordinators dedication to the unit and the access they had to him in having questions answered

Recommendation

The Unit Coordinator will continue to provide structure to the Zoom tutorials by ensuring unit milestones are highlighted and encouraging students to meet them throughout the course of the term. He will also make sure students have easy access to him so that questions and issues can be addressed in a quick and efficient timeframe

Feedback from Have Your Say survey

Feedback

Students appreciated how they were guided through the assessment writing process and as a result were able to enjoy the unit much more than was initially anticipated

Recommendation

The Unit Coordinator will continue to provide small, yet achievable goals, throughout the term that are directly related to the composition and drafting of the final assignment

Unit Learning Outcomes

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

1. Collect and use data ethically
2. Critically analyse and interpret research data
3. Interpret research data and discuss findings professionally
4. Prepare and present a journal paper within the required style and format of an appropriate journal in the field of course enrolment.

The purpose of Medical Science Research Project's 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
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Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 30%	•	•	•	•
2 - Written Assessment - 70%	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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

MEDS21006

Supplementary

Designing Clinical Research

Edition: 4th (2013)

Authors: Hulley SB, Cummings SR, Browner WS, Grady DG, Newman TB

Lippincott Williams and Wilkins,

Philadelphia, PA, USA

ISBN: ISBN: 9781608318049

Binding: eBook

MEDS21006

Supplementary

Research Methodology: A Step-by-Step Guide for Beginners

Edition: 4th (2014)

Authors: Ranjit Kumar

SAGE Publishing

Melbourne, VIC, Australia

ISBN: ISBN: 9781446269978

Binding: eBook

Additional Textbook Information

Both paper and eBook versions can be purchased 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

Jennifer Alphonse Unit Coordinator

j.alphonse@cqu.edu.au

Schedule

Week 1 - 12 Jul 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• Selecting a topic• Patient/Population/Problem, Intervention, Comparison, Outcome (PICO)• Clarifying the purpose of your literature review		<p>Zoom tutorial Wednesday night 7-8pm AEST</p> <p>Familiarise yourself with the assessment task in Moodle and think about a topic choice.</p>

Week 2 - 19 Jul 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> • Choosing databases • Developing a search strategy: key terms and concepts • Critical appraisal tools (CATs) • Risk of Bias (RoBs) 		Start conducting a literature search to determine if the topic of the paper is suitable and if there is enough literature to allow progression on your topic.

Week 3 - 26 Jul 2021

Module/Topic	Chapter	Events and Submissions/Topic
Writing an annotated bibliography <ul style="list-style-type: none"> • Summary • Evaluation • Reflection 		Zoom tutorial Wednesday night 7-8pm AEST

Week 4 - 02 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
Writing a critical review from the annotated bibliography		Refine your research topic and aim using PICO to aid your work in completing Assessment 1.

Week 5 - 09 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
Presentation of data <ul style="list-style-type: none"> • Method • Method for narrative review: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) • Statistics • Figures • Tables 		Zoom tutorial Wednesday 7-8pm AEST Assessment 1 Due: Week 5 Friday (13 Aug 2021) 4:00 pm AEST

Vacation Week - 16 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
Break week		

Week 6 - 23 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
Analysing the literature <ul style="list-style-type: none"> • Selection of information • Argument • Structure • Process 		

Week 7 - 30 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> • Introducing the topic • Outlining importance of topic • Finding the gaps in the literature • Aim 		Zoom tutorial Wednesday 7-8pm AEST Writing an introduction.

Week 8 - 06 Sep 2021

Module/Topic	Chapter	Events and Submissions/Topic
Discussing your findings <ul style="list-style-type: none"> • Introducing themes • Critique of literature • Areas for further research • Limitations • Concluding statements 		By now, you should have the first draft of your introduction and discussion for Assessment 2 outlined. You can start the write-up of Assessment 2 (whilst continuing to search for literature). You will need to develop table/s and/or figures.

Week 9 - 13 Sep 2021

Module/Topic	Chapter	Events and Submissions/Topic
Writing a conclusion <ul style="list-style-type: none">• Statement of findings• Areas for future research		Zoom tutorial Wednesday 7-8pm AEST You should be close to having a completed first draft so as to allow time for editing.

Week 10 - 20 Sep 2021

Module/Topic	Chapter	Events and Submissions/Topic
How to write a concise summary of your work.		

Week 11 - 27 Sep 2021

Module/Topic	Chapter	Events and Submissions/Topic
Time to work on pre-submission draft including editing and corrections: check grammar, punctuation and referencing.		Zoom tutorial Wednesday night 7-8pm AEST

Week 12 - 04 Oct 2021

Module/Topic	Chapter	Events and Submissions/Topic
Final editing of paper		Assessment 2 Due: Week 12 Friday (8 Oct 2021) 4:00 pm AEST

Review/Exam Week - 11 Oct 2021

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 18 Oct 2021

Module/Topic	Chapter	Events and Submissions/Topic
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Term Specific Information

Dr. Jennifer Alphonse (Unit Coordinator) works for CQU on Monday, Tuesday and Wednesday and is based on the Sydney Campus.

You will find the best way to contact Jennifer is by email j.alphonse@cqu.edu.au however her phone number is 02 9324 5065.

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. 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 tasks in this unit. More detailed information can be found in the unit profile and on the Moodle.

Assessment Tasks

1 Assessment 1

Assessment Type

Written Assessment

Task Description

This assessment item will develop your skills in evidence-based research. It requires you to write annotated bibliographies on five (5) scientific journal articles along with a critical summary which will answer a research question. Along with the annotated bibliography, you will include the methodology that describes how you searched for the articles. You will develop a critical summary of the information, that has been presented in the annotated bibliographies, which will answer the research question.

The word limit is **2000 +/- 10% (1800 - 2200) words.**

Research Question: Using PICO, design a research question. Search the literature for journal articles related to your research question. Make notes on the process for your search as this will form your methodology. You may find many

articles related to your topic however select only the most relevant and most recent five (5) for your annotated bibliography and critical summary.

An **annotated bibliography** is a concise evaluation (annotation) of each of the five (5) articles that follows the bibliographic (reference) information. The purpose of an annotated bibliography is to collect and organise information that you can also use for a narrative review or research paper. Each bibliographic annotation will be 200-250 words. Steps involved in writing the annotated bibliography and critical summary:

- Think about a topic relevant to medical sonography that interests you
- Conduct a literature search to identify literature related to the selected topic that is available to you
- Develop a research question which can be answered by the available literature
- *For those that have submitted to ethics (MEDS21003) to perform research and are planning to write a research paper for assessment 2, your research question for assessment 1 can be related to your research question for assessment 2*
- *For those that are planning to complete a narrative review for assessment 2, your research question can be related to your research question for assessment 2 (however it cannot be the same question)*
- Select five (5) key papers that you have identified, relevant and related to the research topic and can assist in answering the research question
- Outline the methodology used during the literature search
- Complete an annotated bibliography for each of the 5 selected articles
- Provide a critical summary of the literature findings to aid in answering the research question

The annotated bibliography and critical summary will include the following:

- **Title:** A title which is pertinent to what is discussed in the assessment and reflects the research question
- **Keywords:** A minimum of four (4) keywords: Keywords reflect the research question and were used for your literature search
- **Research Question:** A valid research question
- **Methodology:** Describe the methodology you used to perform to your literature search. Aspects that need to be covered include the databases searched, inclusion and exclusion criteria, Boolean/MeSH search terms
- **Bibliography:** Each of the five (5) referenced collected through the literature search are presented individually in Vancouver style referencing and include the quality of the journal/impact factor, OR number of citations the article has attracted, credibility of the author(s) - author(s) affiliation(s) and a summary consolidating the key findings (**annotating the bibliography**)
- **Critical Summary:** A critical summary of the literature findings, answering your research question .
- **References:** Any additional references will need to be referenced at the end of the document however the five (5) annotated bibliographic references do not need to be referenced at the end of the manuscript.
- **PDF Copies of the five (5) selected articles:** When you upload your annotated bibliography to the Moodle for submission, you will also need to include the 5 articles as separate PDFs. The PDFs are to be identified by the first author and the year of publication e.g Orlic 2019

You will be given one opportunity for feedback to ensure your research question/aim is appropriate.

As with all university assessments, colluding with other students on non-group work tasks is considered academic misconduct and will be dealt with in adherence with the CQU student academic integrity policy and procedure.

Assessment Due Date

Week 5 Friday (13 Aug 2021) 4:00 pm AEST

Submission via Moodle site

Return Date to Students

Week 6 Friday (27 Aug 2021)

Return will be at or after 27/08/2021 due to moderation of multiple markers

Weighting

30%

Minimum mark or grade

50%

Assessment Criteria

Assessment criteria for MEDS21006 Medical Science Research Project 2 is detailed in the marking rubric, available on the Moodle site. In addition you will be marked on the following:

Written Style, presentation and communication:

- Quality and relevance of the articles to the research question
- Currency of the article; how recent was the article published
- Synthesises information into a unified and coherent whole document, demonstrating internal consistency and logical flow
- Written in a scholarly style that is culturally and ethically aware
- Written to foster intellectual debate
- Demonstrates creativity and originality
- Spelling, grammar and punctuation

Self-plagiarism: This assessment must be a different body of work to that which was previously developed

in MEDS21003. The same topic can be used however the research question must be different.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Submission via Moodle site

Learning Outcomes Assessed

- Collect and use data ethically
- Critically analyse and interpret research data
- Interpret research data and discuss findings professionally
- Prepare and present a journal paper within the required style and format of an appropriate journal in the field of course enrolment.

Graduate Attributes

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

2 Assessment 2

Assessment Type

Written Assessment

Task Description

In this assessment, you will continue to develop and apply your research skills to enable you to write a research paper or narrative review. The research paper or narrative review should be **2500 +/- 10% (2250 to 2750)** words long with the word count excluding the structured abstract, figures, tables and reference. At least 20 journal articles will need to be cited throughout the paper. The research paper/narrative review should be suitable for your discipline and will either be:

1. The write-up of the research project you commenced in MEDS21003, subsequently received ethics approval to do, and have collected data for, or
2. A narrative review on a topic related to the one you commenced in MEDS21003, the topic you chose in Assessment 1 for MEDS21006, or a new topic.

The skills you will develop include the ability to critically analyse reading material, to articulate an academic argument and to reflect on your own bias and assumptions. You will use these skills throughout your career as a health professional.

The research paper or narrative review will include the following:

Structured Abstract

- The structured abstract is written as a short, robust, stand-alone summary
- Includes the headings: introduction, methods, results and conclusion
- Length **(200 words)**

Introduction

- Leads the reader from a general area of research to a specific area of research
- Describes the motivation for the study
- Discusses the importance of the findings
- Includes and makes clear the research question to be addressed
- Demonstrates originality and creativity of topic and contribution to the field.

The body of the paper (method, results and discussion as sub-headings)

- The **methodology** is well explained, unambiguous, logical and practical, or presented as a figure which is referred to in the text.

- **Results** are well presented either as narrative and/or tabulated
- **Discussion** is written comprehensively and critiques the literature

Conclusion

- Written in a way that draws conclusions from the study and relates to major points arising from research
- And answers the research question

You will be given one opportunity to obtain feedback from your mentor prior to submission.

As with all university assessments, colluding with other students on non-group work tasks is considered academic misconduct and will be dealt with in adherence with the CQU student academic integrity policy and procedure.

Assessment Due Date

Week 12 Friday (8 Oct 2021) 4:00 pm AEST

Submission via Moodle site

Return Date to Students

Exam Week Friday (22 Oct 2021)

Return will be at or after 22nd October 2021 due to moderation of multiple markers

Weighting

70%

Minimum mark or grade

50%

Assessment Criteria

Assessment criteria for the narrative review/research paper is detailed in the marking rubric which is available on the Moodle site. In addition you will be marked on the following:

Written style, presentation and communication

- Synthesis information into a unified and coherent whole manuscript, demonstrates internal consistency and logical flow
- There is clear progression from research question through to conclusion
- Written in a style that is culturally and ethically aware
- Data and findings are presented astutely, creatively and effectively as table/s and/or figure/s
- Critically analyses own work in an objective and reflective manner
- Uses visual presentation to maximum effect using the presentation approach for purpose and audience
- Written and presented in a scholarly style
- Findings are communicated in a style that incorporates specialist and non-specialist audiences and are very clearly articulated but demonstrate critical judgement
- Independently written and can foster intellectual debate
- Contributes information that is relevant and of value to the field concerned
- Demonstrates creativity and originality
- Appropriate in-text referencing (citation)
- Accurate and complete reference list
- Appropriate language, clear, accurate and used to maximum effect
- Outstanding command of grammar and spelling with thorough editing

Contribution to the field

- Relative to the limited time available for a research project - meticulous, substantial exploration of limits and strengths
- Contribution of a novel or new knowledge to the development of current theory, research or practice

Assessment Criteria for research paper

The assessment criteria are the same as for narrative review, with the addition of:

Materials and Methods

- The description of the data collection methodology in detailed and flawless
- The steps in data collection are defined in appropriate detail allowing the reader to be able to reproduce the study
- The population/sampling, location, restriction/limiting conditions, sampling techniques, procedures, materials and variable are discussed unambiguously
- Any lab equipment, specific instruments, subjects, computer or mathematical models are explained
- Any bias in data collection is clearly explained

Results

- Results are described in an orderly fashion using text and illustrative methods
- Summaries of statistical analysis are described
- Tables and figures appropriately used in support of the text
- Negative results are also reported

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Submission via Moodle site

Learning Outcomes Assessed

- Collect and use data ethically
- Critically analyse and interpret research data
- Interpret research data and discuss findings professionally
- Prepare and present a journal paper within the required style and format of an appropriate journal in the field of course enrolment.

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