MEDI742

Research Rotation 2

S1 Day 2018

Medicine and Health Sciences Faculty level units

Contents

General Information

Unit convenor and teaching staff Lecturer Mark Butlin mark.butlin@mq.edu.au Level 1, 75 Talavera Road
Credit points 4
Prerequisites Admission to MRes
Corequisites
Co-badged status
Unit description This is a shell unit that will provide placements for MRes students in FMHS research laboratories for approximately eleven weeks. Over that period students will become a member of the laboratory; they will be assigned to a senior PhD student to shadow and assist in the development of the student's project. They will have an opportunity to participate in laboratory work, to assist in the acquisition and analysis of data, and to gain insight to the daily working of a research laboratory. Students will participate in laboratory meetings and journal club and present written and oral accounts of their progress. The immersive learning environment of the research laboratory will provide students with access to discipline-specific expertise, and demonstrate the application of the theoretical knowledge obtained in earlier units. The unit will be assessed during the lab rotation period through oral presentations and a written report. The report will take the form of a short communication covering the background, aims and outcomes of their rotation.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

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

Acquire and demonstrate advanced theoretical and/or practical knowledge of a field of research and apply this knowledge to a small research project.

Gain insight into the day-to-day running of a research group and the responsibilities of

self-directed postgraduate research and collaborate in discussion centred around research ideas, methods, and data.

Acquire, analyse, and interpret research data and methods in a way suitable for presentation to the scientific community.

Review and critically evaluate diverse scientific literature and present your findings.

Assessment Tasks

Name	Weighting	Hurdle	Due
Research engagement	30%	No	Week 1 to 13
'Conference' presentation	35%	No	Week 6
'Conference' paper	35%	No	Week 14 (exam period)

Research engagement

Due: **Week 1 to 13**
Weighting: **30%**

Contribution in your research placement, including documentation of research activities in a laboratory book or research diary and participating in research activities and discussion.

On successful completion you will be able to:

- Acquire and demonstrate advanced theoretical and/or practical knowledge of a field of research and apply this knowledge to a small research project.
- Gain insight into the day-to-day running of a research group and the responsibilities of self-directed postgraduate research and collaborate in discussion centred around research ideas, methods, and data.
- Acquire, analyse, and interpret research data and methods in a way suitable for presentation to the scientific community.
- Review and critically evaluate diverse scientific literature and present your findings.

'Conference' presentation

Due: **Week 6**
Weighting: **35%**

A scientific presentation on the aims of your work, a critical appraisal of the methods being employed to achieve that aim, and presentation of any preliminary data.

On successful completion you will be able to:

- Acquire and demonstrate advanced theoretical and/or practical knowledge of a field of research and apply this knowledge to a small research project.
- Gain insight into the day-to-day running of a research group and the responsibilities of self-directed postgraduate research and collaborate in discussion centred around research ideas, methods, and data.
- Acquire, analyse, and interpret research data and methods in a way suitable for presentation to the scientific community.
- Review and critically evaluate diverse scientific literature and present your findings.

'Conference' paper

Due: **Week 14 (exam period)**
Weighting: **35%**

An article in the form of a conference proceeding based on the research work conducted during the semester.

On successful completion you will be able to:

- Acquire and demonstrate advanced theoretical and/or practical knowledge of a field of research and apply this knowledge to a small research project.
- Gain insight into the day-to-day running of a research group and the responsibilities of self-directed postgraduate research and collaborate in discussion centred around research ideas, methods, and data.
- Acquire, analyse, and interpret research data and methods in a way suitable for presentation to the scientific community.
- Review and critically evaluate diverse scientific literature and present your findings.

Delivery and Resources

- Laboratory heads or supervising researchers will be expected to provide the student with initial reading material (or the sources) relevant to the project.
- Students should use this provided material to actively seek further reading through searching the current literature (e.g. research articles and reviews) using tools such as PubMed, Scopus, and/or GoogleScholar. This material should supplement and extend their understanding of the research topic, and assist in preparation of assessed material.
- Students should keep a laboratory notebook for documentation of their day-to-day work, including details such as experimental methods, observations, results and results analysis, and conclusions. The lab book serves as an important written record

in research and may be used to guide future work in your host group. The lab book will remain the property of the research group at the end of the session.

Unit Schedule

As soon as your research group selection has been confirmed, you should contact your research group leader for the first research placement and arrange to meet. At the latest, this should be in week 2 of session, but if you have your allocation in week 1 you are encouraged to make arrangements during that week. It is expected that each week, at least one and a half days (approximately 11 hours) be engaged in research activities, whether that be laboratory work, preparation/analysis of data, or learning through critical review of literature.

Learning and Teaching Activities

Laboratory induction

If students have not undergone a laboratory induction (for example, if they were not enrolled in MEDI741), a laboratory induction will need to be organised if required for the nature of research being conducted in the placement.

Research placement

Students are encouraged to seek out research supervisors from an area of research that they are interested in. Some information will be provided on iLearn, and you should work with the unit convenor in the first week to ensure that you have a research placement. It is highly encouraged that the research undertaken be in the area that the student is interested in undertaking in the second year of the Masters of Research, if that is their desired academic pathway. Activities will be conducted under the supervision of a post-doctoral researcher or senior PhD student. They will either assist with a currently running project, or conduct a small independent project (at the discretion of the laboratory head).

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4*

December 2017 and replaces the Disruption to Studies Policy.)

Undergraduate students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy.

The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcome

- Gain insight into the day-to-day running of a research group and the responsibilities of self-directed postgraduate research and collaborate in discussion centred around research ideas, methods, and data.

Assessment task

- Research engagement

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Acquire and demonstrate advanced theoretical and/or practical knowledge of a field of research and apply this knowledge to a small research project.
- Gain insight into the day-to-day running of a research group and the responsibilities of self-directed postgraduate research and collaborate in discussion centred around research ideas, methods, and data.
- Acquire, analyse, and interpret research data and methods in a way suitable for presentation to the scientific community.
- Review and critically evaluate diverse scientific literature and present your findings.

Assessment tasks

- Research engagement
- 'Conference' presentation
- 'Conference' paper

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Acquire and demonstrate advanced theoretical and/or practical knowledge of a field of research and apply this knowledge to a small research project.
- Acquire, analyse, and interpret research data and methods in a way suitable for presentation to the scientific community.
- Review and critically evaluate diverse scientific literature and present your findings.

Assessment tasks

- Research engagement
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- 'Conference' paper

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Acquire and demonstrate advanced theoretical and/or practical knowledge of a field of research and apply this knowledge to a small research project.
- Acquire, analyse, and interpret research data and methods in a way suitable for presentation to the scientific community.

Assessment tasks

- Research engagement
- 'Conference' presentation
- 'Conference' paper

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Acquire and demonstrate advanced theoretical and/or practical knowledge of a field of research and apply this knowledge to a small research project.
- Acquire, analyse, and interpret research data and methods in a way suitable for presentation to the scientific community.
- Review and critically evaluate diverse scientific literature and present your findings.

Assessment tasks

- Research engagement
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PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcome

- Gain insight into the day-to-day running of a research group and the responsibilities of self-directed postgraduate research and collaborate in discussion centred around research ideas, methods, and data.

Assessment task

- Research engagement