MEDI307

Laboratory Experience and Training 2

S2 Day 2018

Medicine and Health Sciences Faculty level units

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
Julie Atkin
julie.atkin@mq.edu.au

Credit points
3

Prerequisites
Admission to BClinSc and (39cp at 100 level or above) including CBMS104 and GPA of 6.5 (out of 7.0)

Corequisites

Co-badged status

Unit description
This is the second of two units providing placements for BClinSc students in FMHS research laboratories. There will be two streams, depending on whether students have completed MEDI208. In both streams students will develop research skills in the field of biomedical science and students will contribute to research projects under the supervision of a laboratory head within the FMHS. Students that already completed MEDI208 will be involved in peer assisted learning in the first 3 weeks. From week 4 students from both streams will carry out a research project, and receive training in how to present scientific data in a professional capacity, both in oral and written form.

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:

Use practical research skills and equipment in a research setting

Understand and apply the principles of safe, responsible and professional conduct in a research setting.

Explain the theoretical underpinnings of the techniques used in a field of contemporary research.

Create and maintain appropriate research notes/field work records.

Evaluate scientific literature and relate to data collected.

General Assessment Information

General Information

Grade descriptors and other information concerning grading are contained in the Macquarie University Grading Policy, which is available at: http://www.mq.edu.au/policy/docs/grading/policy.html

To pass this unit, students must demonstrate sufficient evidence of achievement of the learning outcomes and complete all assessment tasks.

Further details for each assessment task will be available on iLearn.

All final grades in the Bachelor of Clinical Science are determined by a grading committee and are not the sole responsibility of the Unit Convenor.

Students will be awarded one of these grades plus a Standardised Numerical Grade (SNG). The SNG is not necessarily a summation of the individual assessment components. The final grade and SNG that are awarded reflect the corresponding grade descriptor in the Grading Policy.

Attendance requirements Students are required to attend a minimum of 80% of their scheduled learning activities, unless special consideration is granted by the unit convenor. Where a student does not attend a minimum of 80% of classes, they may not be able to pass this unit.

Extensions for Assessment tasks

Applications for assessment task extensions must be submitted via www.ask.mq.edu.au. For further details please refer to the Disruption to Studies Policy available at http://mq.edu.au/policy/docs/ disruption_studies/policy.html

Late Submission of Work

All assignments which are officially received after the due date, and where no extension has been granted by the course convenor or tutor, will incur a deduction of 10% for the first day, and 10% for each subsequent day including the actual day on which the work is received. Weekends and public holidays are included. For example:

Due date	Received	Days late	Deduction	Raw mark	Final mark
Friday 14th	Monday 17th	3	30%	75%	45%

Assessment Tasks

Name	Weighting	Hurdle	Due
Research Safety Quiz	0%	No	Week 1

Name	Weighting	Hurdle	Due
Practical Assessment	10%	No	Week 2
Journal Club	10%	No	Week 8
Research Record	20%	No	Week 13
Research Paper	60%	No	Week 13

Research Safety Quiz

Due: **Week 1**
Weighting: **0%**

Quiz based on health and safety aspects of research.

On successful completion you will be able to:

- Use practical research skills and equipment in a research setting
- Understand and apply the principles of safe, responsible and professional conduct in a research setting.
- Evaluate scientific literature and relate to data collected.

Practical Assessment

Due: **Week 2**
Weighting: **10%**

Graded observation of a routine research task, appropriate to the research environment.

On successful completion you will be able to:

- Use practical research skills and equipment in a research setting
- Understand and apply the principles of safe, responsible and professional conduct in a research setting.
- Explain the theoretical underpinnings of the techniques used in a field of contemporary research.
- Evaluate scientific literature and relate to data collected.

Journal Club

Due: **Week 8**
Weighting: **10%**

Oral presentation to research group as part of placement. Research Supervisor will select a journal article of relevance to the research project. The paper will be presented in oral format,

and should be 20 minutes long:15 minutes and 5 minutes for questions.

On successful completion you will be able to:

- Evaluate scientific literature and relate to data collected.

Research Record

Due: **Week 13**
Weighting: **20%**

A laboratory or fieldwork notebook, log book or similar written record, that describes the work conducted throughout the research placement. Maintenance of a research log, typically 12 or more pages in length.

On successful completion you will be able to:

- Use practical research skills and equipment in a research setting
- Understand and apply the principles of safe, responsible and professional conduct in a research setting.
- Explain the theoretical underpinnings of the techniques used in a field of contemporary research.
- Create and maintain appropriate research notes/field work records.
- Evaluate scientific literature and relate to data collected.

Research Paper

Due: **Week 13**
Weighting: **60%**

Research conducted during the placement written into the format of a research paper, consisting of Aims, Methods, Results, Discussion. Written report in the style of a research paper, of approximate length 2,000 words

On successful completion you will be able to:

- Explain the theoretical underpinnings of the techniques used in a field of contemporary research.
- Create and maintain appropriate research notes/field work records.
- Evaluate scientific literature and relate to data collected.

Delivery and Resources

Technology Used

Active participation in the learning activities throughout the unit may require students to have access to a tablet, laptop or similar device. Students who do not own their own laptop computer

may borrow one from the university library.

Required Unit Materials

For placements in laboratories within the Department of Biomedical Sciences, all students are required to wear closed shoes and a lab coat/gown to attend practical classes and assessments in the laboratory venue.

Recommended Readings

Details of recommended readings will be provided by supervisor in the host research group

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

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Use practical research skills and equipment in a research setting
- Understand and apply the principles of safe, responsible and professional conduct in a

research setting.

Assessment tasks

- Research Safety Quiz
- Practical Assessment
- Journal Club
- Research Record

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- Explain the theoretical underpinnings of the techniques used in a field of contemporary research.
- Evaluate scientific literature and relate to data collected.

Assessment tasks

- Practical Assessment
- Journal Club
- Research Record
- Research Paper

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Use practical research skills and equipment in a research setting
- Understand and apply the principles of safe, responsible and professional conduct in a

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- Explain the theoretical underpinnings of the techniques used in a field of contemporary research.
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Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

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Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Use practical research skills and equipment in a research setting
- Explain the theoretical underpinnings of the techniques used in a field of contemporary research.
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Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Use practical research skills and equipment in a research setting
- Understand and apply the principles of safe, responsible and professional conduct in a research setting.
- Explain the theoretical underpinnings of the techniques used in a field of contemporary research.
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Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- Use practical research skills and equipment in a research setting
- Understand and apply the principles of safe, responsible and professional conduct in a research setting.
- Explain the theoretical underpinnings of the techniques used in a field of contemporary research.

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