MEDI208

Laboratory Experience and Training 1

S3 Day 2019

Medicine and Health Sciences Faculty level units

Contents

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General Information

Unit convenor and teaching staff
Unit Convenor
Itsu Sen
itsu.sen@mq.edu.au

Credit points
3

Prerequisites
Admission to BClinSc and (12cp at 100 level) and (6cp at 200 level) and GPA of 6.5 (out of 7.0)

Corequisites

Co-badged status

Unit description
Through this unit, you will begin to develop the required knowledge and skills to participate in basic research in the field of health or biomedical science. You will learn about the importance of appropriate research notetaking and record keeping. Building upon this, you will learn about widely used research methodology, gain an appreciation for the translational capacity of medical research as well as the application of emerging medical technology. You will be provided the opportunity to develop your skills in research planning and communication, setting you up for future studies that integrate research within your learning.

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:

Recognise the basic research methods to prepare and commence research

Apply basic methods to perform research data analysis, data collection, and data storage.

Create and maintain appropriate research notes and records

Evaluate and discuss scientific literature

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
Lab report	20%	No	Week 3
Statistical Data Analysis	30%	No	Week 6

Name	Weighting	Hurdle	Due
Medical Research Study	50%	No	Week 6

Lab report

Due: **Week 3**
Weighting: **20%**

A written report that describes and discusses experimental observations and results acquired during practical classes.

On successful completion you will be able to:
- Recognise the basic research methods to prepare and commence research
- Apply basic methods to perform research data analysis, data collection, and data storage.
- Create and maintain appropriate research notes and records
- Evaluate and discuss scientific literature

Statistical Data Analysis

Due: **Week 6**
Weighting: **30%**

Students will be provided with a data set in which to perform statistical and descriptive analysis.

On successful completion you will be able to:
- Recognise the basic research methods to prepare and commence research
- Apply basic methods to perform research data analysis, data collection, and data storage.

Medical Research Study

Due: **Week 6**
Weighting: **50%**

Using a research project and associated data, students will analyse the data and provide a research report that introduces the project and presents and discusses the results.

On successful completion you will be able to:
- Recognise the basic research methods to prepare and commence research
- Apply basic methods to perform research data analysis, data collection, and data storage.

- Create and maintain appropriate research notes and records

- Evaluate and discuss scientific literature

Delivery and Resources

Technology Used

Active participation in the learning activities throughout the unit may require students to have access to a laptop or similar device which has been installed Excel and MATLAB environment. Students who do not own their own laptop computer may borrow one and install the software from the university library.

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 published on platform other than eStudent, (eg. iLearn, Coursera etc.) 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 or if you are a Global MBA

student contact globalmba.support@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

If you are a Global MBA student contact globalmba.support@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 outcome

- Recognise the basic research methods to prepare and commence research

Assessment tasks

- Lab report
- Statistical Data Analysis
- Medical Research Study

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

- Apply basic methods to perform research data analysis, data collection, and data storage.
- Evaluate and discuss scientific literature

Assessment tasks

- Statistical Data Analysis
- Medical Research Study

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

- Recognise the basic research methods to prepare and commence research
- Apply basic methods to perform research data analysis, data collection, and data storage.
- Create and maintain appropriate research notes and records
- Evaluate and discuss scientific literature

Assessment tasks

- Lab report
- Statistical Data Analysis
- Medical Research Study

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:

Learning outcomes

- Recognise the basic research methods to prepare and commence research
- Apply basic methods to perform research data analysis, data collection, and data storage.
- Create and maintain appropriate research notes and records
- Evaluate and discuss scientific literature

Assessment tasks

- Lab report
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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

- Apply basic methods to perform research data analysis, data collection, and data storage.
- Create and maintain appropriate research notes and records
- Evaluate and discuss scientific literature

Assessment tasks

- Lab report
- Statistical Data Analysis
- Medical Research Study

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

- Recognise the basic research methods to prepare and commence research
- Apply basic methods to perform research data analysis, data collection, and data storage.
- Create and maintain appropriate research notes and records
- Evaluate and discuss scientific literature

Assessment tasks

- Lab report
- Statistical Data Analysis
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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

- Recognise the basic research methods to prepare and commence research
- Apply basic methods to perform research data analysis, data collection, and data storage.

Assessment tasks

- Lab report
- Statistical Data Analysis
- Medical Research Study

Changes from Previous Offering

N/a