MEDI712

Research Frontiers in Medical Science 2

S2 Day 2018

Medicine and Health Sciences Faculty level units

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
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Consultation by appointment

Unit Convenor
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Credit points
4

Prerequisites
Admission to MRes

Corequisites

Co-badged status

Unit description
Building on MEDI711, students will continue to acquire an advanced conceptual knowledge of breakthrough discoveries relevant to a range of topics within the field of medical research. Through the mentoring of senior research-active staff, post-doctoral researchers and FMHS PhD candidates, students will gain discipline specific knowledge that will be relevant to their future research careers.Students will:1. Attend seminars and lectures focused on ongoing research projects from the Faculty of Medicine and Health Sciences and from invited speakers from leading national and international research institutes.2. Participate in self-directed and group tasks in which they will learn to research, read and critically review seminal research findings that have shaped contemporary thinking, and to disseminate their findings in written and oral 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:

Acquire advanced knowledge of current research in medical science

Identify and discuss complex problems and issues in medical research with intellectual independence

Synthesise and analyse information from a wide variety of sources on medical research

Develop oral and written communication skills, related to grant applications, and self-directed learning.

Identify pertinent areas of research and formulate a suitable methodology to test out a research question

Evaluate and appraise a research protocol based on quality, feasibility and significance.

General Assessment Information

Grade descriptors and other information concerning grading are contained in Schedule 1 of the Macquarie University Assessment Policy, which is available at: https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/assessment.

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

All final grades in the Masters of Research are determined by a grading committee and are not the sole responsibility of the Unit Convenor.

Students will be awarded a final grade 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.

To pass this unit, students must demonstrate sufficient evidence of achievement of the learning outcomes, attempt all assessment tasks, meet any ungraded requirements including professionalism and achieve an SNG of 50 or better.

Student Professionalism

In the Faculty of Medicine and Health Sciences, professionalism is a key capability embedded in all our programs. As part of developing professionalism, students are expected to attend all small group interactive sessions including tutorials, as well as clinical- and laboratory-based practical sessions.

Furthermore, lectures and seminars are key learning activities that you are expected to attend throughout completion of the Masters of Research program. While audio recordings and lecture slides may be made available following these large group sessions, it is important to recognise that such resources are a study aid - and should not be considered an alternative to lecture or seminar attendance.

Students who do not maintain adequate attendance (greater than or equal to 80% of scheduled

classes) may be deemed unable to meet expectations regarding professionalism and may be referred for disciplinary action (which may include exclusion from assessments and unit failure).

Similarly, as part of developing professionalism, students are expected to submit all work by the due date. Applications for assessment task extensions must be supported by appropriate evidence and submitted via www.ask.mq.edu.au. For further details please refer to the Special Consideration Policy available at https://students.mq.edu.au/study/my-study-program/special-consideration.

Late Submission

All assignments which are officially received after the due date, and where no extension has been granted, 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
Shark-Tank Grant Pitch	15%	No	Week 7
Grant Application	40%	No	Week 9
Peer Review and Rebuttal	30%	No	Week 11/12
Seminar Attendance	15%	No	Week 13

Shark-Tank Grant Pitch

Due: **Week 7**
Weighting: **15%**

Students will be asked to decide on a research question in their area of interest and pitch their grant to an audience of research peers. This will be a short talk followed by a short question session in a Shark-Tank style live pitch.

On successful completion you will be able to:

- Identify and discuss complex problems and issues in medical research with intellectual independence
- Develop oral and written communication skills, related to grant applications, and self-directed learning.
- Identify pertinent areas of research and formulate a suitable methodology to test out a

research question

Grant Application

Due: **Week 9**
Weighting: **40%**

Students will submit a mock grant application based on the MQ New Staff application.

On successful completion you will be able to:

- Acquire advanced knowledge of current research in medical science
- Identify and discuss complex problems and issues in medical research with intellectual independence
- Synthesise and analyse information from a wide variety of sources on medical research
- Develop oral and written communication skills, related to grant applications, and self-directed learning.
- Identify pertinent areas of research and formulate a suitable methodology to test out a research question

Peer Review and Rebuttal

Due: **Week 11/12**
Weighting: **30%**

Students will provide a peer review of a colleague's grant application (discussing strengths, weaknesses, significance and innovation). A week later (week 12), students will discuss and respond to the comments of the peer reviewers (staff as well as peers).

On successful completion you will be able to:

- Acquire advanced knowledge of current research in medical science
- Identify and discuss complex problems and issues in medical research with intellectual independence
- Synthesise and analyse information from a wide variety of sources on medical research
- Develop oral and written communication skills, related to grant applications, and self-directed learning.
- Evaluate and appraise a research protocol based on quality, feasibility and significance.

Seminar Attendance

Due: **Week 13**
Weighting: **15%**

Students are expected to attend a minimum of 15 seminars (medical related and at least 30 minutes each) over the Semester. These can include Research Seminars hosted by Biomedical

Sciences, AIHI, the Department of Health Professions or other Faculties. In addition to the log book attendance record, you must prepare a detailed critique of five of the attended seminars. Log book and critique will need to be submitted via Turnitin in week 13. If the log book is incomplete or if insufficient seminars have been attended, a zero grade for this component will be recorded. Formative feedback will be provided for first critique in week 3.

On successful completion you will be able to:

- Acquire advanced knowledge of current research in medical science
- Synthesise and analyse information from a wide variety of sources on medical research
- Evaluate and appraise a research protocol based on quality, feasibility and significance.

Delivery and Resources

Throughout the semester students will be provided with references to various journal papers which they will be expected to read and reflect on. Students are also encouraged to expand their knowledge and understanding of topics presented by further reading of the current literature (using databases such as Scopus and PubMed).

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.

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy http://mq.edu.au/policy/docs/grading/policy.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the Learning and Teaching Category of 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/support/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

- Synthesise and analyse information from a wide variety of sources on medical research

Assessment tasks

- Grant Application
- Peer Review and Rebuttal
- Seminar Attendance

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 outcome

- Acquire advanced knowledge of current research in medical science

Assessment tasks

- Shark-Tank Grant Pitch
- Grant Application
- Peer Review and Rebuttal

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

- Identify and discuss complex problems and issues in medical research with intellectual independence
- Synthesise and analyse information from a wide variety of sources on medical research
- Develop oral and written communication skills, related to grant applications, and self-directed learning.
- Identify pertinent areas of research and formulate a suitable methodology to test out a research question
- Evaluate and appraise a research protocol based on quality, feasibility and significance.

Assessment tasks

- Shark-Tank Grant Pitch
- Grant Application
- Peer Review and Rebuttal
- Seminar Attendance

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

- Identify and discuss complex problems and issues in medical research with intellectual independence
- Synthesise and analyse information from a wide variety of sources on medical research
- Identify pertinent areas of research and formulate a suitable methodology to test out a research question
- Evaluate and appraise a research protocol based on quality, feasibility and significance.

Assessment tasks

- Shark-Tank Grant Pitch
- Grant Application
- Peer Review and Rebuttal
- Seminar Attendance

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

- Develop oral and written communication skills, related to grant applications, and self-directed learning.
- Identify pertinent areas of research and formulate a suitable methodology to test out a research question
- Evaluate and appraise a research protocol based on quality, feasibility and significance.

Assessment tasks

- Shark-Tank Grant Pitch
- Grant Application
- Peer Review and Rebuttal

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 outcomes

- Acquire advanced knowledge of current research in medical science
- Identify and discuss complex problems and issues in medical research with intellectual independence
- Develop oral and written communication skills, related to grant applications, and self-directed learning.
- Identify pertinent areas of research and formulate a suitable methodology to test out a research question

Assessment tasks

- Shark-Tank Grant Pitch
- Grant Application
- Peer Review and Rebuttal

Changes from Previous Offering

This unit, similar to previous years, is an extension of MEDI711 from Semester 1. The core research topics have been modified to reflect current research within the Department of Biomedical Sciences.