MEDI8100

Applied Medical Science 1

Session 1, Weekday attendance, North Ryde 2021

Medicine, Health and Human Sciences Faculty level units

Contents

Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to timetable viewer. To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff
Christine Chiu
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Credit points
20

Prerequisites
Admission to MD

Corequisites
(MEDI911 or MEDI8101) and (MEDI912 or MEDI8102)

Co-badged status

Unit description
This is the first unit in the Applied Medical Sciences component of the Macquarie MD Course. In this unit you will develop a foundational understanding of the biomedical sciences behind the body systems. You will study how the disciplines of anatomy, physiology, biochemistry, cell biology, pathology, microbiology, immunology and pharmacology contribute to the structure and function of normal body systems, and how these may be altered in common disease states. You will evaluate clinical case studies individually, and in small groups, to identify questions and learning needs, and will draw upon evidence from a range of sources to articulate responses to clinical scenarios. Learning activities will include lectures, interactive practical sessions, online activities, and team based learning sessions. Through this unit you will develop the foundational medical science knowledge needed to be an effective future clinical practitioner.

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:

ULO1: Apply knowledge of the biomedical sciences (anatomy, physiology, biochemistry, cell biology, pathology, microbiology, immunology and pharmacology) to explain optimal

health. (Capability 1: Scientist and Scholar)

ULO2: Apply knowledge of the biomedical sciences (anatomy, physiology, biochemistry, cell biology, pathology, microbiology, immunology and pharmacology) that underpin common or clinically-significant disease states. (Capability 1: Scientist and Scholar)

ULO3: Explain pharmacological properties and mechanisms of standard treatments. (Capability 1: Scientist and Scholar)

ULO4: Explain scientific and clinical information effectively using the most appropriate scientific sources. (Capability 1: Scientist and Scholar)

ULO5: Demonstrate competency in formulating relevant clinical questions about diagnosis, prognosis and treatment of conditions for which people seek healthcare. (Capability 1: Scientist and Scholar)

ULO6: Explain how psychological, social and cultural issues affect the health of individuals and populations and how these might be mediated, while respecting diversity. (Capability 3: Engaged Global Citizen)

General Assessment Information

Detailed information regarding the assessment of the Macquarie MD and unit-specific assessment is available on the MQMDAssess Macquarie MD Assessment 2021 Intake iLearn site.

Grading

In this unit the mid- and final session examinations will be numerically graded with a standardised mark out of 100. The numeric marks for the assessment examinations are weighted according to their contribution, and used to calculate the overall Unit aggregate. Unit outcomes based on the unit aggregate will be reported to the University using the standard Macquarie grades (High distinction, Distinction, Credit, Pass, Fail). A single numerical grade (SNG) will be reported for each University grade. The conversion of the aggregate to SNG are available in the Macquarie MD Rules of Assessment and Progression document posted in the Policies and Guidelines section of the MDCU Doctor of Medicine Community iLearn site.

All final grades in the Macquarie MD are reviewed by the MD Course Board and Faculty Assessment Committee and ratified by the Faculty of Medicine and Health Sciences Faculty Board. Therefore, they are not the sole responsibility of the Unit Convenor.

To pass this unit students must demonstrate sufficient evidence of achievement of the learning outcomes, attempt all assessment tasks, and meet any ungraded requirements which include professionalism.

Extensions for Assessment tasks

Applications for assessment task extensions must be submitted via https://ask.mq.edu.au/. For further details please refer to the Special Consideration Policy avaialble at https://students.mq.edu.au/study/my-study-program/special-consideration

Professional Expectations

Professionalism is a key capability embedded in the Macquarie MD. Professional Behaviour Notifications (PBN) which can be a breach (PBNB) or a commendation (PBNC) may be awarded. PBNs will be recorded in the student's portfolio. As part of developing professionalism, Macquarie MD students are expected to attend all small group interactive sessions including clinical, practical, laboratory and team-based learning activities. If attendance is deemed to be of concern, the student will be referred to the Year 1 and Stage 1 Lead for remediation, subsequent monitoring, and recording in the portfolio. Similarly, as part of developing professionalism, Macquarie MD students are expected to submit all work by the due date. Late submission without prior approved extension will result in a professional behaviour notification- breach (PBNB) in the portfolio.

Assessment Tasks

Name	Weighting	Hurdle	Due
Midsession exam	40%	No	Week 7
End of session examination	60%	No	Week 14-16 (Exam Period)

Midsession exam

Assessment Type [1]: Examination
Indicative Time on Task [2]: 40 hours
Due: **Week 7**
Weighting: **40%**

The mid-session exam is a written examination that will assess all content covered within the first half of the session. The examination will include both multiple choice and short answer questions which will be mapped to specific focused capability aspects with results for these aspects being recorded in your Macquarie Assessment Portfolio.

On successful completion you will be able to:

- Apply knowledge of the biomedical sciences (anatomy, physiology, biochemistry, cell biology, pathology, microbiology, immunology and pharmacology) to explain optimal health. (Capability 1: Scientist and Scholar)
- Apply knowledge of the biomedical sciences (anatomy, physiology, biochemistry, cell biology, pathology, microbiology, immunology and pharmacology) that underpin common or clinically-significant disease states. (Capability 1: Scientist and Scholar)
- Explain pharmacological properties and mechanisms of standard treatments. (Capability 1: Scientist and Scholar)
- Explain scientific and clinical information effectively using the most appropriate scientific sources. (Capability 1: Scientist and Scholar)

- Demonstrate competency in formulating relevant clinical questions about diagnosis, prognosis and treatment of conditions for which people seek healthcare. (Capability 1: Scientist and Scholar)
- Explain how psychological, social and cultural issues affect the health of individuals and populations and how these might be mediated, while respecting diversity. (Capability 3: Engaged Global Citizen)

End of session examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 60 hours
Due: **Week 14-16 (Exam Period)**
Weighting: **60%**

The end of session examination will assess all content delivered during the session. The examination will include both multiple choice and short answer questions which will be mapped to specific focused capability aspects with results for these aspects being recorded in your Macquarie Assessment Portfolio.

On successful completion you will be able to:

- Apply knowledge of the biomedical sciences (anatomy, physiology, biochemistry, cell biology, pathology, microbiology, immunology and pharmacology) to explain optimal health. (Capability 1: Scientist and Scholar)
- Apply knowledge of the biomedical sciences (anatomy, physiology, biochemistry, cell biology, pathology, microbiology, immunology and pharmacology) that underpin common or clinically-significant disease states. (Capability 1: Scientist and Scholar)
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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Assumed knowledge

This unit assumes that you have a comprehensive knowledge of ***Human Anatomy and Physiology***.

Textbooks

The following texts are recommended. Copies will be available online through the library and/or held in library reserve.

- Anatomy: Moore *et al* (2017). *Clinically Oriented Anatomy* (8th ed.). ISBN 9781496347213.
- Histology: Ross & Pawlina. *Histology: a text and atlas: with correlated cell and molecular biology* (7th ed.). ISBN: 9781451187427.
- Medicine: Colledge *et al*. *Davidson's Principles and Practice of Medicine* (22nd ed.). ISBN: 9780702050350.
- Physiology: Guyton & Hall. *Textbook of Medical Physiology* (13th ed.). ISBN: 9781455770052.
- Pharmacology: Rang *et al* (2020). *Rang and Dale's Pharmacology* (9th ed.). ISBN: 9780702074462.
- Microbiology: Goering *et al* (2013). *Mims' Medical Microbiology* (5th ed.). ISBN: 9780723436010.
- Biochemistry: Baynes, J and Dominiczak, M. (2018). *Medical Biochemistry* (5th ed.). E-ISBN 9780702073007.
- Pathology: Kumar *et al. Robbins and Cotran Pathologic Basis of Disease* (9th ed.). ISBN: 9781455726134.
- Embryology: Moore, K., Persaud, T. V. N, & Torchia, Mark G. (2015). *The developing human: clinically oriented embryology* (10th ed.). ISBN: 9780323313384.
- Neuroanatomy: Fitzgerald, M.J.T. (2015) *Fitzgerald's Clinical Neuroanatomy and Neuroscience* (7th ed.). ISBN: 9780702068140

Technology and equipment

MQ is a BYOD environment where students are encouraged to bring their personally owned

devices (laptops, tablets, etc.) to class and to use these devices to access information and study.

On-campus

Teaching rooms are equipped with state of art audio-visual and ICT equipment. Students will use a range of specific equipment typically used in the assessment and management of people with a range of health conditions.

Off-campus

To study optimally when off campus you will need to have access to a reliable internet connection to retrieve unit information and engage with online resources.

Consultation with staff

Staff will be available for individual consultations, please see the iLearn site for information on staff availability for consultation.

Teaching and Learning Strategy

This unit will have 6 hours of lectures, one 2 hour practical session and one 2 hour clinical colloquium session each week.

- The lectures will cover topics and concepts that encompass the biomedical sciences. Academic researchers and clinical specialists will deliver lectures via pre-recorded videos. Students will be given the opportunity to ask questions and/or work through activities during a weekly Q&A session.
- Practical classes are held on campus and will allow students to apply practical and/or conceptual elements to help shape their understanding.
- The Clinical Colloquium integrates learning from across all units in Year 1 and allows students to consolidate and apply both practical and conceptual elements to help shape their understanding. Online activities and resources will be available prior to the colloquium session. It is expected that students engage with the online resources to assist in their participation in the team based learning that will occur during the colloquium session.

iLearn

This unit's iLearn site will provide weekly resources for students, including:

- lecture notes and recordings
- practical lesson worksheets
- preparation and consolidation material
- videos
- other teaching resources

- assessment details

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). 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

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

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/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 help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops

- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

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.