# MEDI8100

## Applied Medical Science 1

Session 1, In person-scheduled-weekday, North Ryde 2022

*Medicine, Health and Human Sciences Faculty level units*

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# General Information

Unit convenor and teaching staff

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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 2022 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, Health and Human 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 available at https://students.mq.edu.au/study/assessment-exams/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 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

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<th>Name</th>
<th>Weighting</th>
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<td>Midsession exam</td>
<td>40%</td>
<td>No</td>
<td>Week 7</td>
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**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 (University 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)
- 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)

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*.

**Teaching and Learning Strategy**
This unit includes 6 hours of lectures, a 2 hour practical session, and a 2 hour clinical colloquium session each week.

- 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 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

Textbooks

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

Available as hard copies in MQ Library reserve


Available electronically via MQ Library - ClinicalKey Student

- Guyton & Hall. (2021) Textbook of Medical Physiology (14th Ed.).
- Kierszenbaum A.L. (2020) Histology and Cell Biology: An Introduction to Pathology (5th
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. Teaching rooms are equipped with audio-visual and ICT equipment. 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.

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
- Assessment Procedure
- Complaints Resolution 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

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

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

The Writing Centre

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the 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

Macquarie University offers a range of Student Support Services including:
Student Enquiries
Got a question? Ask us via AskMQ, or contact Service Connect.

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.