

# **MEDI8103**

# **Applied Medical Science 2**

Session 2, Weekday attendance, North Ryde 2021

Medicine, Health and Human Sciences Faculty level units

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#### Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

#### Session 2 Learning and Teaching Update

The decision has been made to conduct study online for the remainder of Session 2 for all units WITHOUT mandatory on-campus learning activities. Exams for Session 2 will also be online where possible to do so.

This is due to the extension of the lockdown orders and to provide certainty around arrangements for the remainder of Session 2. We hope to return to campus beyond Session 2 as soon as it is safe and appropriate to do so.

Some classes/teaching activities cannot be moved online and must be taught on campus. You should already know if you are in one of these classes/teaching activities and your unit convenor will provide you with more information via iLearn. If you want to confirm, see the list of <u>units with</u> mandatory on-campus classes/teaching activities.

Visit the MQ COVID-19 information page for more detail.

# **General Information**

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Credit points 20

Prerequisites (MEDI910 or MEDI8100) and (MEDI911 or MEDI8101) and (MEDI912 or MEDI8102)

Corequisites (MEDI914 or MEDI8104) and (MEDI915 or MEDI8105)

Co-badged status

#### Unit description

This is the second 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 <a href="https://www.mq.edu.au/study/calendar-of-dates">https://www.mq.edu.au/study/calendar-of-dates</a>

# **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

The mid- and final session examinations are 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, meet any ungraded requirements including professionalism and achieve a unit aggregate of 50% or better.

#### Extensions for Assessment tasks

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

#### **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
Mid-session examination	40%	No	Week 7
End of session examination	60%	No	Week 14-16 (Exam Period)

### Mid-session examination

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

The mid-session examination will assess content delivered during the first half of the session. The examination will consist of multiple choice and short answer questions which will be mapped to capability aspects. Results overall and for focused capability aspects will be 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 content delivered during the session. The examination will consist of multiple choice and short answer questions which will be mapped to capability aspects. Results overall and for focused capability aspects will be 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)

<sup>1</sup> 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.

<sup>2</sup> 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 are available through the library.

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

#### Technology and equipment

MQ is a BYOD environment where students are encouraged to bring their personally owned devices to class and to use these devices to access information and study. 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. 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 allow students to apply practical and/or conceptual elements.
- The Clinical Colloquium integrates learning from across all units in Year 1 and allows students to consolidate and apply both practical and conceptual elements. 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, practical and clinical colloquium material
- videos
- other teaching resources

# **Policies and Procedures**

Macquarie University policies and procedures are accessible from Policy Central (https://policie s.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 <u>Student Policies</u> (<u>https://students.mq.edu.au/su</u> <u>pport/study/policies</u>). 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.e

du.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 <u>eStudent</u>, (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 <u>eStudent</u>. For more information visit <u>ask.mq.edu.au</u> 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 <u>http://stu</u> dents.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 <u>http://www.mq.edu.au/about\_us/</u>offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.