MEDI2101

Cardiovascular and Respiratory System

Session 2, Special circumstances, North Ryde 2021

Medicine, Health and Human Sciences Faculty level units

Contents

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 units with mandatory on-campus classes/teaching activities.

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

General Information

Unit convenor and teaching staff
Unit convenor
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Credit points
10

Prerequisites
(30cp at 1000 level or above including ANAT1001 or HLTH108) and admission to BClinSc

Corequisites

Co-badged status

Unit description
This unit introduces integrated learning of the anatomy and physiology of the cardiovascular and respiratory system. It focuses on: the mechanisms that maintain homeostasis in these coordinated systems including acid-base balance; a working knowledge of the dynamic cardiovascular and respiratory responses to physical challenges; the ability to relate cardiovascular and respiratory diseases to their underlying pathophysiological pathways. You will also critically consider scientific and medical evidence in cardiovascular and respiratory contexts to inform hypothesis generation, discussion and individual decision-making. Learning activities include instruction in anatomy and practical instruction on cardiovascular and respiratory measurements such as blood pressure, electrocardiograms, spirometry, and breath and heart sounds. This unit provides the basic knowledge of the cardiovascular and respiratory system required as a minimum for future medical studies and introduces an investigative knowledge basis for research in a biomedical or medical setting.

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: Describe the anatomical structures of the cardiovascular and respiratory systems.

ULO2: Explain the functions of the cardiovascular and respiratory system, as well as the mechanisms that maintain homeostasis in these coordinated systems.

ULO3: Relate knowledge of the structure and function of the cardiovascular and respiratory system to disease processes.

ULO4: Use biomedical literature and the method of scientific enquiry to outline the cardiovascular and respiratory response to physical challenges.

ULO5: Effectively participate in scheduled activities and in peer teams, seeking and reflecting on feedback to improve individual and group performance.

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 Bachelor of Clinical Science 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, Health and Human Sciences, professionalism is a key capability embedded in all our courses. 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 Bachelor of Clinical Science. 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 are required to attend a minimum of 80% of all small group interactive sessions. Students that do not meet this requirement 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

Late submissions will receive a 5% per day penalty including weekends and public holidays. If you submit the assessment task 10 days or more beyond the due date you will be awarded a maximum of 50% of the overall assessment marks.

For example:

Due date	Received	Days late	Deduction	Raw mark	Final mark
Friday 14th	Monday 17th	3	15%	75%	60%

The final exam and in class test must be submitted at the scheduled time unless an approved special consideration is granted.

Assessment Tasks

Name	Weighting	Hurdle	Due
Formative Online Quiz	0%	No	Week 3
Anatomy Test	25%	No	Week 7
Hypothesis Testing and Reporting	35%	No	Week 8 and 12
Final Exam	40%	No	End of session examination period

Formative Online Quiz

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 2 hours
Due: **Week 3**
Weighting: **0%**

Assessment on content delivered in the initial weeks of session. Quiz will be online using multiple choice style questions. This assessment task provides formative feedback prior to census.

On successful completion you will be able to:

- Describe the anatomical structures of the cardiovascular and respiratory systems.
- Explain the functions of the cardiovascular and respiratory system, as well as the mechanisms that maintain homeostasis in these coordinated systems.

Anatomy Test

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 10 hours
Due: **Week 7**
Weighting: **25%**

Test assessing content covered in the anatomy and surface anatomy practical peer group sessions.

On successful completion you will be able to:

- Describe the anatomical structures of the cardiovascular and respiratory systems.

- Explain the functions of the cardiovascular and respiratory system, as well as the mechanisms that maintain homeostasis in these coordinated systems.
- Effectively participate in scheduled activities and in peer teams, seeking and reflecting on feedback to improve individual and group performance.

Hypothesis Testing and Reporting

Assessment Type [1]: Professional writing
Indicative Time on Task [2]: 15 hours
Due: **Week 8 and 12**
Weighting: **35%**

A biomedical investigation reported in conventional scientific format. Introduction and discussion sections to be completed individually around experimental work.

On successful completion you will be able to:

- Explain the functions of the cardiovascular and respiratory system, as well as the mechanisms that maintain homeostasis in these coordinated systems.
- Relate knowledge of the structure and function of the cardiovascular and respiratory system to disease processes.
- Use biomedical literature and the method of scientific enquiry to outline the cardiovascular and respiratory response to physical challenges.
- Effectively participate in scheduled activities and in peer teams, seeking and reflecting on feedback to improve individual and group performance.

Final Exam

Assessment Type [1]: Examination
Indicative Time on Task [2]: 20 hours
Due: **End of session examination period**
Weighting: **40%**

Formal exam using a combination of question types assessing content delivered across the session. This task is completed under examination conditions during the University examination period.

On successful completion you will be able to:

- Describe the anatomical structures of the cardiovascular and respiratory systems.
- Explain the functions of the cardiovascular and respiratory system, as well as the mechanisms that maintain homeostasis in these coordinated systems.
- Relate knowledge of the structure and function of the cardiovascular and respiratory system to disease processes.
- Use biomedical literature and the method of scientific enquiry to outline the cardiovascular and respiratory response to physical challenges.

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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

This unit involves essential on-campus learning activities which will be delivered in accordance with a COVID Safe plan. You are expected to attend on-campus for these activities unless the Public Health Orders and/or University advice changes, you have any symptoms of COVID or you have been identified as a contact of an individual with COVID. Please refer to iLearn for further information.

Technology Used

Active participation in the learning activities throughout the unit will generally require students to have access to a tablet, laptop or similar device. Students who do not own their own laptop computer may borrow one from the university library.

Recommended Readings

Unit readings are available via the university library website through Leganto.

Unit Schedule

Block 1: Respiratory system, physiology and anatomy (Weeks 1 to 3)

- Introduction of concepts
- Respiratory system
- Respiratory regulation

Block 2: Cardiovascular system, physiology and anatomy (Weeks 4 to 7)

- The heart
- Circulatory system
- Cardiovascular regulation
- The microcirculation and lymph flow

Block 3: Cardiovascular and respiratory integration (Weeks 8 an 9)

- Cardiovascular and respiratory physiology in exercise
- Cardiovascular and respiratory homeostasis and thermal regulation

Block 4: Cardiovascular and respiratory system in disease (Weeks 10 to 12)

- Diseases of the respiratory system: Chronic obstructive pulmonary disease
- Diseases of the heart: Heart failure
- Disease of the vascular system: Isolated systolic hypertension

Block 5: Review (Week 13)

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.

Changes since First Published

Date	Description
15/07/2021	Additional delivery and resources information has been provided.

Unit information based on version 2021.01R of the Handbook