

CAUD8003

Theoretical Bases of Audiology

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

Department of Linguistics

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General Information

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Credit points

10

Prerequisites

Admission to MClinAudiology

Corequisites

(CAUD802 or CAUD8002) and (CAUD804 or CAUD8004) and (CAUD819 or CAUD8001)

Co-badged status

Unit description

This unit will equip students with the theoretical concepts underpinning audiological assessment techniques and aural rehabilitation strategies. This includes an in-depth review of the anatomy and physiology of the auditory system; provide core acoustic concepts including the nature of sound and the principles of sound transmission and room acoustics and discuss how these apply to audiometric test environments and equipment calibration; and facilitate the development of problem-solving and clinical reasoning skills, particularly when audiometric information appears inconsistent.

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: Demonstrate an understanding of the auditory system, how it functions, and the importance of binaural hearing for localisation and listening in noise.

ULO2: Describe and evaluate the common disorders of the auditory system, their underlying pathophysiology, and typical clinical outcomes.

ULO3: Explain and apply the basic principles of acoustics, acoustic measures, and instrument calibration.

ULO4: Describe and critically evaluate the properties and analysis of complex sounds, sound transmission, and sound field testing

Assessment Tasks

Name	Weighting	Hurdle	Due
Acoustics Quiz	15%	No	16/03/2022
Anatomy & Physiology Quiz	15%	No	13/04/2022
Case-based assessment	30%	No	13/05/2022
Exam	40%	No	Exam period

Acoustics Quiz

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 10 hours

Due: **16/03/2022** Weighting: **15%**

This assessment enables the student to demonstrate their knowledge of acoustics through short-answer questions.

On successful completion you will be able to:

• Explain and apply the basic principles of acoustics, acoustic measures, and instrument calibration.

Anatomy & Physiology Quiz

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 10 hours

Due: **13/04/2022** Weighting: **15%**

This assessment enables the student to demonstrate their knowledge of the anatomy and

physiology of the auditory pathway through short-answer questions.

On successful completion you will be able to:

- Demonstrate an understanding of the auditory system, how it functions, and the importance of binaural hearing for localisation and listening in noise.
- Describe and evaluate the common disorders of the auditory system, their underlying pathophysiology, and typical clinical outcomes.

Case-based assessment

Assessment Type 1: Case study/analysis Indicative Time on Task 2: 30 hours

Due: **13/05/2022** Weighting: **30%**

This assessment enables the student to demonstrate their understanding of a specific auditory disorder and effects of room acoustics in the application to a clinical case. The expected length is 2000 words.

On successful completion you will be able to:

- Demonstrate an understanding of the auditory system, how it functions, and the importance of binaural hearing for localisation and listening in noise.
- Describe and evaluate the common disorders of the auditory system, their underlying pathophysiology, and typical clinical outcomes.
- Explain and apply the basic principles of acoustics, acoustic measures, and instrument calibration.
- Describe and critically evaluate the properties and analysis of complex sounds, sound transmission, and sound field testing

Exam

Assessment Type 1: Examination Indicative Time on Task 2: 25 hours

Due: **Exam period** Weighting: **40%**

This assessment enables the student to demonstrate their understanding of core concepts in this

unit, and show their ability to integrate and apply these to clinical problems.

On successful completion you will be able to:

- Demonstrate an understanding of the auditory system, how it functions, and the importance of binaural hearing for localisation and listening in noise.
- Describe and evaluate the common disorders of the auditory system, their underlying pathophysiology, and typical clinical outcomes.
- Explain and apply the basic principles of acoustics, acoustic measures, and instrument calibration.
- Describe and critically evaluate the properties and analysis of complex sounds, sound transmission, and sound field testing

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

Delivery and Resources

Please see iLearn for the most up-to-date information

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

¹ If you need help with your assignment, please contact:

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

Students seeking more policy resources can visit <u>Student Policies</u> (<u>https://students.mq.edu.au/support/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 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 <u>academic integrity</u> – 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 <u>online writing and</u> d maths support, academic skills development and <u>wellbeing consultations</u>.

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:

- IT Support
- · Accessibility and disability support with study
- Mental health support
- <u>Safety support</u> to respond to bullying, harassment, sexual harassment and sexual assault
- · Social support including information about finances, tenancy and legal issues

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 <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.