



# CAUD8106

## Advanced Ear and Hearing Assessments

Session 2, In person-scheduled-weekday, North Ryde 2026

*Department of Linguistics*

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## General Information

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Credit points

10

Prerequisites

Admission to MCLinAudiology and CAUD8101 and CAUD8102 and CAUD8103

Corequisites

Co-badged status

Unit description

In this unit you will examine audiological assessments and service delivery across the lifespan and in linguistically diverse populations where behavioural assessments are not sufficient. You will enhance your understanding of objective techniques such as Otoacoustic Emissions, Auditory Brainstem Responses and Auditory Steady State Responses and their application. These assessments are often used in difficult-to-test populations that include infants, as well as populations that are unable to behaviourally respond. This unit also includes an examination of vestibular assessments and the related auditory physiology. The unit aims to define the various objective techniques; equip you to analyse, evaluate and integrate the results of the objective techniques with a view to plan rehabilitation and referral.

## 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:** Explain auditory and vestibular physiology (peripheral to brainstem), related disorders and pathophysiology, and apply knowledge to design an appropriate test battery (Capability 1 Scientist & Scholar)

**ULO2:** Perform and appropriately modify an objective audiological test battery as part of a broader assessment for site-of-lesion detection in both complex and non-complex cases (Capability 2 Practitioner)

**ULO3:** Integrate and interpret findings from audiological objective assessments, including vestibular assessments, and present to your client the diagnoses with appropriate referral pathway, using culturally- and age-appropriate language (Capability 2 Practitioner)

**ULO4:** Critically evaluate current scientific literature to inform the selection and use of relevant objective audiological assessment techniques, including vestibular assessments. Demonstrate consideration of the clinical and regional context in which the assessments take place (Capability 3 Citizen)

## General Assessment Information

Grade descriptors and other information concerning grading are contained in the [Macquarie University Assessment Policy](#).

All final grades are determined by a grading committee, in accordance with the Macquarie University Assessment Policy, and are not the sole responsibility of the Unit Convenor.

Students will be awarded a final grade and a mark which must correspond to the grade descriptors specified in the [Assessment Procedure](#) (clause 128).

To pass this unit, you must demonstrate sufficient evidence of achievement of the learning outcomes, meet any ungraded requirements, and achieve a final mark of 50 or better.

Further details for each assessment task will be available on iLearn.

### Late Submissions

Unless a Special Consideration request has been submitted and approved, a 5% penalty (OF THE TOTAL POSSIBLE MARK) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11.55pm. A 1-hour grace period is provided to students who experience a technical concern.

For example:

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| Number of days (hours) late | Total Possible Marks | Deduction | Raw mark | Final mark |
|-----------------------------|----------------------|-----------|----------|------------|
| 1 day (1-24 hours)          | 100                  | 5         | 75       | 70         |
| 2 days (24-48 hours)        | 100                  | 10        | 75       | 65         |
| 3 days (48-72 hours)        | 100                  | 15        | 75       | 60         |
| 7 days (144-168 hours)      | 100                  | 35        | 75       | 40         |
| >7 days (>168 hours)        | 100                  | -         | 75       | 0          |

Late submission of time sensitive tasks, such as timetabled tests/exams, scheduled performance assessments/presentations, scheduled practical assessments/labs, will be addressed by the unit convenor in a Special consideration application.

### Special Consideration

If you are unable to complete an assessment task on or by the specified date due circumstances that are unexpected, unavoidable, significantly disruptive and beyond your control, you may apply for special consideration in accordance with the [special consideration policy](#). Applications for special consideration must be supported by appropriate evidence and submitted via [ask.mq.edu.au](mailto:ask.mq.edu.au).

## Assessment Tasks

| Name                              | Weighting | Hurdle | Due                             | Groupwork/Individual | Short Extension | AI Approach |
|-----------------------------------|-----------|--------|---------------------------------|----------------------|-----------------|-------------|
| <a href="#">Mastery Register</a>  | 25%       | Yes    | After every practical and class | Individual           | No              | Observed    |
| <a href="#">Final Examination</a> | 40%       | No     | Exam period                     | Individual           | No              | Observed    |
| <a href="#">Viva</a>              | 35%       | No     | 17th and 18th Sep               | Individual           | No              | Observed    |

## Mastery Register

Assessment Type <sup>1</sup>: Practice-based task

Indicative Time on Task <sup>2</sup>: 19 hours

Due: **After every practical and class**

Weighting: **25%**

Groupwork/Individual: Individual

Short extension <sup>3</sup>: No

AI Approach: Observed

**This is a hurdle assessment task (see [assessment policy](#) for more information on hurdle assessment tasks)**

You will demonstrate key clinical skills and knowledge at a level of competence aligned with accreditation standards.

On successful completion you will be able to:

- Explain auditory and vestibular physiology (peripheral to brainstem), related disorders and pathophysiology, and apply knowledge to design an appropriate test battery (Capability 1 Scientist & Scholar)
- Perform and appropriately modify an objective audiological test battery as part of a broader assessment for site-of-lesion detection in both complex and non-complex cases (Capability 2 Practitioner)
- Integrate and interpret findings from audiological objective assessments, including vestibular assessments, and present to your client the diagnoses with appropriate referral pathway, using culturally- and age-appropriate language (Capability 2 Practitioner)

## Final Examination

Assessment Type <sup>1</sup>: Examination

Indicative Time on Task <sup>2</sup>: 30 hours

Due: **Exam period**

Weighting: **40%**

Groupwork/Individual: Individual

Short extension <sup>3</sup>: No

AI Approach: Observed

You will complete an exam consisting of both theoretical and case study based questions.

On successful completion you will be able to:

- Explain auditory and vestibular physiology (peripheral to brainstem), related disorders and pathophysiology, and apply knowledge to design an appropriate test battery (Capability 1 Scientist & Scholar)
- Perform and appropriately modify an objective audiological test battery as part of a broader assessment for site-of-lesion detection in both complex and non-complex cases (Capability 2 Practitioner)
- Integrate and interpret findings from audiological objective assessments, including vestibular assessments, and present to your client the diagnoses with appropriate referral pathway, using culturally- and age-appropriate language (Capability 2 Practitioner)

Practitioner)

- Critically evaluate current scientific literature to inform the selection and use of relevant objective audiological assessment techniques, including vestibular assessments.

Demonstrate consideration of the clinical and regional context in which the assessments take place (Capability 3 Citizen)

## Viva

Assessment Type <sup>1</sup>: Problem-based task

Indicative Time on Task <sup>2</sup>: 25 hours

Due: **17th and 18th Sep**

Weighting: **35%**

Groupwork/Individual: Individual

Short extension <sup>3</sup>: No

AI Approach: Observed

You will be presented with various clinical cases. You will be asked to interpret and integrate the results of various tests and provide an audiological diagnosis or a recommendation.

On successful completion you will be able to:

- Explain auditory and vestibular physiology (peripheral to brainstem), related disorders and pathophysiology, and apply knowledge to design an appropriate test battery (Capability 1 Scientist & Scholar)
- Perform and appropriately modify an objective audiological test battery as part of a broader assessment for site-of-lesion detection in both complex and non-complex cases (Capability 2 Practitioner)
- Integrate and interpret findings from audiological objective assessments, including vestibular assessments, and present to your client the diagnoses with appropriate referral pathway, using culturally- and age-appropriate language (Capability 2 Practitioner)

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<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
- [Academic Success](#) 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.

<sup>3</sup> An automatic short extension is available for some assessments. Apply through the [Service Connect Portal](#).

## Delivery and Resources

This class largely consists of in-person lectures, practicals, and in-class workshops. It is expected that students will complete the pre-reading content in preparation for the upcoming lecture. Students will be informed of content release and expected tasks to complete before attending the in-person class.

### Recommended Readings

These are provided on the iLearn site and include publications that align with the learning material. These are recommended to deepen your understanding of course content.

### Recommended Textbook

New Handbook of Auditory Evoked Responses, Pearson, 2007; [James Wilbur Hall](#)

### Optional Office/Check-in Hour

The convener holds an optional check-in hour (Wednesdays, 4-5 PM) when students can drop by to clarify any lingering questions or ask questions about the unit to ensure they understand and feel comfortable with the unit's content.

### Technology Used

Active participation in the learning activities throughout the unit may 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.

## Unit Schedule

| Week | Date   | Section                   | In-person Lectures - Wednesdays 9 AM-12 Noon                                                                                                                                                            | Readings<br>(In addition to class slides)                                                  | In-person (optional) tutorials |
|------|--------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------|
| 1    | 29 Jul | Basics                    | <b>Signals &amp; Systems</b> Introduction, signals and systems, signal generation, filters, digital-to-analog-to-digital conversion                                                                     | Hall Ch1                                                                                   | 4-5 PM                         |
| 2    | 5 Aug  |                           | <b>Neurophysiology of Auditory Responses</b> Electricity basics, auditory neurophysiology, biophysics of acoustic, receptor, and neural response generation and their recording requisites, OAE and ABR | Hall Ch2, 3<br>Jackson & Bolger, 2014<br>Kirschstein & Kohling, 2009                       | 4-5 PM                         |
| 4    | 12 Aug | Auditory Evoked Responses | <b>Inner Ear Responses</b> Otoacoustic Emissions, Cochlear Microphonics, Compound Action Potentials, Summating Potentials                                                                               | Hall Ch4, 5 (up to pg.137); OAEs: Shera and Abdala, 2012; Lonsbury-Martin and Martin, 2007 | 4-5 PM                         |

|   |                |                            |                                                                                                                                                                                                      |                                                  |        |
|---|----------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------|
| 5 | 19 Aug         |                            | <b>Auditory Brainstem Responses</b>                                                                                                                                                                  | Hall Ch6, 7, 9 (up to pg.343), 10 (up to pg.419) | 4-5 PM |
| 6 | 26 Aug         |                            | <b>Cortical Auditory Evoked Potentials</b> Middle and late latency potentials, P300, Mismatch Negativity, and magnetoencephalography                                                                 | Hall Ch11, 12, 13, 14                            | 4-5 PM |
| 7 | 2 Sep          | Vestibular Assessments     | <b>Vestibular Assessments</b> Vestibular anatomy and physiology, Videonystagmography, Vestibular Evoked Myogenic Potentials, Video Head Impulse Testing and an introduction to vestibular disorders. | Katz Ch20, 21 & Rosengren et al., 2019           | 4-5 PM |
| 8 | 9 Sep          | Frequency Domain Responses | <b>Auditory Steady-State Responses</b>                                                                                                                                                               | Hall Ch8                                         | 4-5 PM |
|   | 12 Sep – 1 Nov | No 8106 Classes            |                                                                                                                                                                                                      |                                                  |        |
| 9 | 4 Nov          |                            | Revision                                                                                                                                                                                             |                                                  | 4-5 PM |
|   | 9-Nov onwards  | Exam weeks                 |                                                                                                                                                                                                      |                                                  |        |

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](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 \(https://students.mq.edu.au/support/study/policies\)](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 \(https://policies.mq.edu.au\)](https://policies.mq.edu.au)

[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 [connect.mq.edu.au](https://connect.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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/>

## Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Ask a Study Coach](#)
- [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](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

## Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

## IT Help

For help with University computer systems and technology, visit <https://students.mq.edu.au/support/technology/service-desk>.

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.

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Unit information based on version 2026.03 of the [Handbook](#)