



# CAUD818

## Advanced Hearing Devices

S1 Day 2017

*Dept of Linguistics*

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## General Information

Unit convenor and teaching staff

Other Staff

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Unit Convenor

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Credit points

4

Prerequisites

CAUD805 and CAUD806 and CAUD807

Corequisites

Co-badged status

Unit description

This unit aims to equip students with a deep understanding of, and the ability to evaluate the applications of hearing aids, implantable devices, and assistive listening systems. The unit develops students' understanding of the mechanisms by which hearing devices meet the needs of hearing impaired people and the evidence for the effectiveness of a variety of technologies. In a wider sense this unit aims to equip students with the skills and information needed to evaluate existing and emerging hearing device technologies to provide evidence-based treatment.

## 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:

1. Knowledge • To build from basic knowledge acquired in CAUD805 to a more in-depth understanding of the complex technological features of modern hearing devices.
- Gain a basic understanding of signal processing; its importance in regulating the

advanced features of hearing devices and its strengths and limitations

- Solidify and extend knowledge about likely clinical benefits/efficacy of hearing device technology.

2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.

3. Application of Knowledge • Develop ability to evaluate future hearing aid technologies independently. • Apply knowledge and skills to facilitate clinical practice including; fitting, verifying and measuring the outcomes of hearing devices.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Audiology Group Project</u>	20%	No	9/6/17
<u>Client Fitting Assignment</u>	15%	No	28/4/17
<u>Cochlear Implant Essay</u>	25%	No	20/3/17
<u>Exam</u>	40%	No	exam period

### Audiology Group Project

Due: **9/6/17**

Weighting: **20%**

Students will work in groups to examine the practicalities of setting up a private practice. There are many issues in running a successful business. However, this group project aims to focus on 3 issues which are: (1) securing income; (2) controlling expenses; and (3) complying with regulations. Further details will be provided.

On successful completion you will be able to:

- 2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.

### Client Fitting Assignment

Due: **28/4/17**

Weighting: **15%**

Students will be assigned a client with a particular hearing loss and background, appropriate hearing aid and other technology must be selected and discussed.

On successful completion you will be able to:

- 1. Knowledge • To build from basic knowledge acquired in CAUD805 to a more in-depth understanding of the complex technological features of modern hearing devices.
- • Gain a basic understanding of signal processing; its importance in regulating the advanced features of hearing devices and its strengths and limitations
- • Solidify and extend knowledge about likely clinical benefits/efficacy of hearing device technology.
- 2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.
- 3. Application of Knowledge • Develop ability to evaluate future hearing aid technologies independently. • Apply knowledge and skills to facilitate clinical practice including; fitting, verifying and measuring the outcomes of hearing devices.

## Cochlear Implant Essay

Due: **20/3/17**

Weighting: **25%**

The essay will cover the topics of cochlear implant candidacy, factors affecting success and the intersection of hearing aid and cochlear implant fittings.

On successful completion you will be able to:

- 1. Knowledge • To build from basic knowledge acquired in CAUD805 to a more in-depth understanding of the complex technological features of modern hearing devices.
- • Solidify and extend knowledge about likely clinical benefits/efficacy of hearing device technology.
- 2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.

## Exam

Due: **exam period**

Weighting: **40%**

Written exam

On successful completion you will be able to:

- 1. Knowledge • To build from basic knowledge acquired in CAUD805 to a more in-depth understanding of the complex technological features of modern hearing devices.
- • Gain a basic understanding of signal processing; its importance in regulating the

advanced features of hearing devices and its strengths and limitations

- Solidify and extend knowledge about likely clinical benefits/efficacy of hearing device technology.
- 2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.
- 3. Application of Knowledge • Develop ability to evaluate future hearing aid technologies independently. • Apply knowledge and skills to facilitate clinical practice including; fitting, verifying and measuring the outcomes of hearing devices.

## Delivery and Resources

### Technology

Work will require basic general computer skills. Some knowledge of Audiology specific technology such as audiometers, real-ear fitting hardware and software is assumed (CAUD805 is a pre-requisite and should furnish the requisite skills). No additional technology is required.

### Lecture and Tutorial

See timetable

### Information

iLearn will predominantly be used for communication, provision of lecture materials and discussion.

### Changes since last offering of this unit

A tutorial has been added to this unit since its last offering.

### Other material

Suggested textbook:

Dillon, H. (2012). *Hearing aids, 2nd Ed.*. Thieme.

## Unit Schedule

Varies, see timetable: usual classes are 3 hr lectures scheduled Monday and Wednesday.

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy [http://mq.edu.au/policy/docs/academic\\_honesty/policy.html](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

Assessment Policy [http://mq.edu.au/policy/docs/assessment/policy\\_2016.html](http://mq.edu.au/policy/docs/assessment/policy_2016.html)

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Complaint Management Procedure for Students and Members of the Public [http://www.mq.edu.au/policy/docs/complaint\\_management/procedure.html](http://www.mq.edu.au/policy/docs/complaint_management/procedure.html)

Disruption to Studies Policy (in effect until Dec 4th, 2017): [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html)

Special Consideration Policy (in effect from Dec 4th, 2017): <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: [https://students.mq.edu.au/support/student\\_conduct/](https://students.mq.edu.au/support/student_conduct/)

## Results

Results shown in *iLearn*, 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](http://ask.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](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

## 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](http://ask.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/](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.

## Graduate Capabilities

### PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

#### Learning outcomes

- 2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.
- 3. Application of Knowledge • Develop ability to evaluate future hearing aid technologies independently. • Apply knowledge and skills to facilitate clinical practice including; fitting, verifying and measuring the outcomes of hearing devices.

#### Assessment tasks

- Audiology Group Project
- Client Fitting Assignment
- Cochlear Implant Essay
- Exam

### PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

#### Learning outcomes

- 1. Knowledge • To build from basic knowledge acquired in CAUD805 to a more in-depth understanding of the complex technological features of modern hearing devices.
- • Gain a basic understanding of signal processing; its importance in regulating the advanced features of hearing devices and its strengths and limitations
- • Solidify and extend knowledge about likely clinical benefits/efficacy of hearing device technology.

## Assessment tasks

- Client Fitting Assignment
- Cochlear Implant Essay
- Exam

## PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

## Learning outcomes

- • Gain a basic understanding of signal processing; its importance in regulating the advanced features of hearing devices and its strengths and limitations
- • Solidify and extend knowledge about likely clinical benefits/efficacy of hearing device technology.
- 2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.
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## Assessment tasks

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- Cochlear Implant Essay
- Exam

## PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:



## Learning outcomes

- Gain a basic understanding of signal processing; its importance in regulating the advanced features of hearing devices and its strengths and limitations
- Solidify and extend knowledge about likely clinical benefits/efficacy of hearing device technology.
- 2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.

## Assessment tasks

- Audiology Group Project
- Client Fitting Assignment
- Cochlear Implant Essay
- Exam

## PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

## Learning outcomes

- 2. Skills • Build technical skills and become more comfortable with practical aspects of hearing devices. • Critical evaluation of hearing aid technologies.
- 3. Application of Knowledge • Develop ability to evaluate future hearing aid technologies independently. • Apply knowledge and skills to facilitate clinical practice including; fitting, verifying and measuring the outcomes of hearing devices.

## Assessment tasks

- Audiology Group Project
- Client Fitting Assignment
- Cochlear Implant Essay
- Exam

## PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able

to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

## **Learning outcome**

- 3. Application of Knowledge • Develop ability to evaluate future hearing aid technologies independently. • Apply knowledge and skills to facilitate clinical practice including; fitting, verifying and measuring the outcomes of hearing devices.

## **Assessment tasks**

- Client Fitting Assignment
- Exam