

SPH 309

Introduction to Audiology

S1 Evening 2015

Dept of Linguistics

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General Information

Unit convenor and teaching staff

Lecturer

Rebecca Kim

rebecca.kim@mq.edu.au

Contact via 9850 8789

AHH 1.610

Credit points

3

Prerequisites

6cp in LING units at 200 level including (LING210(P) or LING217(P))

Corequisites

Co-badged status

Unit description

This unit aims to provide a broad overview of audiological theory and practice, and is directed particularly at students interested in postgraduate study in audiology. Background issues covered include: aural anatomy and physiology; and auditory disorders. Several areas of audiological practice are introduced, including basic hearing assessment; paediatric audiology; and rehabilitative issues and procedures.

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:

Discuss the profession of Audiology within the Australian Health Care Context.

Describe the effects of a hearing loss in children and adults and the impact it can have on significant others.

Describe frequently occurring disorders in adults and children that underlie hearing disorders and their effect on the auditory pathway

Discuss the nature of hearing impairment and the audiological representations thereof.

Review the basic components of routine hearing assessment in the identification of normal as well as conductive, sensory/neural and central lesions on the basis of

audiometric results.

Describe the different types of advanced testing strategies (evoked potentials) used in assessing auditory function and which part of the auditory system is assessed by each test. Discuss the benefits and limitations of these tests and their practical application in different populations.

Discuss the different aspects of hearing rehabilitation and the strategies and devices available to the audiologist for both adults and children.

Describe how a hearing aid and cochlear implant works and the benefits and limitations of each in different listening situations and discuss which factors are important for assessing implant candidacy.

Discuss the role of counselling in aural rehabilitation and how audiological rehabilitation is provided in various contexts and formats.

Describe the fundamentals of the balance system and its assessment by the audiologist.

Assessment Tasks

Name	Weighting	Due
On Line Quiz	15%	25/03/2015-31/03/2015
Clinical Encounter Assignment	20%	20/04/2015
Essay	25%	04/05/2015
Exam	40%	During examination period

On Line Quiz

Due: 25/03/2015-31/03/2015

Weighting: 15%

The online quiz will be taken on-line through iLearn and will be **made available to you from Friday 27th March at 9am to Tuesday the 31st of March at 9pm**. The quiz will consist of multiple choice and short answer questions covering all material presented thus far. You will be allowed to log on once during that time to complete the quiz. Please note that the test will be timed. You will have 2 hours in which to complete the quiz. No group work or discussions of test content are allowed during the taking of the quiz. Transgression will result in a 0% mark for the quiz.

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- Describe frequently occurring disorders in adults and children that underlie hearing disorders and their effect on the auditory pathway
- Discuss the nature of hearing impairment and the audiological representations thereof.
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Clinical Encounter Assignment

Due: **20/04/2015** Weighting: **20%**

Students will observe 2 videos of clinical encounters and will be asked to comment on the test strategies that they see. Details will be provided in class.

- a) Briefly describe the testing you observed on the video, including characteristics of the child and any other information you observed. (5 marks)
- b) What are the tests you observed? Describe the population they are best suited to and their clinical usefulness (5 marks)
- c) What are the strengths and weaknesses of these tests? (5 marks)
- d) Given the weaknesses inherent in behavioural testing, provide justification as to why it should be used in clinical practice to assess hearing. (10 marks)
- e) The report should be clear, concise and adhere to the word limit. (5 marks)

The report should be no longer than 1500 words. You are encouraged to use headings and point form. Appropriate referencing is expected.

On successful completion you will be able to:

 Review the basic components of routine hearing assessment in the identification of normal as well as conductive, sensory/neural and central lesions on the basis of audiometric results.

Essay

Due: **04/05/2015** Weighting: **25%**

Each student will have a choice of one of the four topics below. Write an essay describing and contrasting different viewpoints on your selected topic. Illustrative examples are encouraged. The topic will require some research. Please adhere to appropriate referencing. Each essay will be

assessed on its content, level of academic writing, originality and coherence.

Topic 1

Children born with a severe-profound hearing loss be fitted with bilateral cochlear implants as early as possible. Discuss.

Topic 2

Normal hearing in one ear is sufficient for normal speech and language development, and it is not useful to diagnose unilateral hearing loss at birth as there is little than can be done to assess the impact of this loss until a child is old enough to describe more complex listening situations. Discuss.

Topic 3

Manufacturers rather than individuals should be responsible for any hearing loss resulting from a device that produces dangerous amounts of sound to the person using it. Discuss this topic with consideration of children's toys, personal music devices, loud sounds in public venues and loud sounds in the work place.

Topic 4

Vincent van Gogh tried cutting off his ear due to tinnitus. Why is this, and sectioning of the auditory nerve is, NOT considered an effective treatment today? What are some of the alternatives that are available today to people with chronic tinnitus?

Please note that these topics are not fully addressed in lectures. Please adhere to the criteria listed in the section: Submission of work regarding citation, referencing and plagiarism. Please note that the reference list should include books, articles as well as web-site sources. Penalties will be incurred for excessive use of web-sourced material.

On successful completion you will be able to:

- Describe frequently occurring disorders in adults and children that underlie hearing disorders and their effect on the auditory pathway
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- Discuss the different aspects of hearing rehabilitation and the strategies and devices available to the audiologist for both adults and children.
- Describe how a hearing aid and cochlear implant works and the benefits and limitations
 of each in different listening situations and discuss which factors are important for
 assessing implant candidacy.
- Discuss the role of counselling in aural rehabilitation and how audiological rehabilitation is provided in various contexts and formats.

Exam

Due: During examination period

Weighting: 40%

The final exam will take place within the university examination period. Details of the exam structure will be provided in class.

On successful completion you will be able to:

- Discuss the profession of Audiology within the Australian Health Care Context.
- Describe the effects of a hearing loss in children and adults and the impact it can have on significant others.
- Describe frequently occurring disorders in adults and children that underlie hearing disorders and their effect on the auditory pathway
- Discuss the nature of hearing impairment and the audiological representations thereof.
- Review the basic components of routine hearing assessment in the identification of normal as well as conductive, sensory/neural and central lesions on the basis of audiometric results.
- Describe the different types of advanced testing strategies (evoked potentials) used in assessing auditory function and which part of the auditory system is assessed by each test. Discuss the benefits and limitations of these tests and their practical application in different populations.
- Discuss the different aspects of hearing rehabilitation and the strategies and devices available to the audiologist for both adults and children.
- Describe how a hearing aid and cochlear implant works and the benefits and limitations
 of each in different listening situations and discuss which factors are important for
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- Describe the fundamentals of the balance system and its assessment by the audiologist.

Delivery and Resources

Lecture:

Day: Wednesday

Time: 5-7pm

Venue: AHH 1.640

Tutorial:

Day: Wednesday 25th, March

Time: 4-5pm.

Venue: AHH 1.620

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

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy http://mq.edu.au/policy/docs/grading/policy.html

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

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.

In addition, a number of other policies can be found in the <u>Learning and Teaching Category</u> 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/

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 <a href="extraction-color: blue} estimate the estimate of the estimation of the estimate of the estima

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 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

IT Help

For help with University computer systems and technology, visit http://informatics.mq.edu.au/hel
p/.

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

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcome

Describe how a hearing aid and cochlear implant works and the benefits and limitations
of each in different listening situations and discuss which factors are important for
assessing implant candidacy.

Assessment tasks

- Essay
- Exam

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Review the basic components of routine hearing assessment in the identification of normal as well as conductive, sensory/neural and central lesions on the basis of audiometric results.
- Discuss the different aspects of hearing rehabilitation and the strategies and devices

- available to the audiologist for both adults and children.
- Describe how a hearing aid and cochlear implant works and the benefits and limitations
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 assessing implant candidacy.

Assessment tasks

- On Line Quiz
- Clinical Encounter Assignment
- Essay
- Exam

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

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- · Describe the fundamentals of the balance system and its assessment by the audiologist.

Assessment tasks

- On Line Quiz
- Clinical Encounter Assignment
- Essay
- Exam

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Review the basic components of routine hearing assessment in the identification of normal as well as conductive, sensory/neural and central lesions on the basis of audiometric results.
- Describe the different types of advanced testing strategies (evoked potentials) used in assessing auditory function and which part of the auditory system is assessed by each test. Discuss the benefits and limitations of these tests and their practical application in different populations.
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Assessment tasks

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Exam

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Review the basic components of routine hearing assessment in the identification of normal as well as conductive, sensory/neural and central lesions on the basis of audiometric results.
- Discuss the different aspects of hearing rehabilitation and the strategies and devices available to the audiologist for both adults and children.

Assessment tasks

- On Line Quiz
- · Clinical Encounter Assignment
- Essay
- Exam

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcome

 Discuss the role of counselling in aural rehabilitation and how audiological rehabilitation is provided in various contexts and formats.

Assessment tasks

- · On Line Quiz
- Essay
- Exam

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

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- Describe the effects of a hearing loss in children and adults and the impact it can have on significant others.
- Discuss the different aspects of hearing rehabilitation and the strategies and devices available to the audiologist for both adults and children.

Assessment tasks

- On Line Quiz
- Essay
- Exam

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcomes

- Discuss the profession of Audiology within the Australian Health Care Context.
- Describe the effects of a hearing loss in children and adults and the impact it can have on significant others.
- Discuss the role of counselling in aural rehabilitation and how audiological rehabilitation is provided in various contexts and formats.

Assessment tasks

- On Line Quiz
- Essay
- Exam

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