## Trainee Matters

Table 1. Universities in Australia offering Master of Audiology degrees

#### SECTION EDITORS



#### Natasha Amiraraghi MBChB, DOHNs, FRCSEd (ORL-HNS),

AMTF in Cochlear Implant and Skull Base Surgery, Crosshouse Hospital, Kilmarnock, UK.

E: natasha.amiraraghi@nhs.net



#### Lizanne Steenkamp, Lecturer in Audiology and Programme Leader for MSc/PgDip in Audiology (pre reg) BAA Board Director for Accreditation, Speech and Hearing Sciences, Queen Margaret University, Musselburgh, UK. T: +44 (0)131 474 0000 E: Isteenkamp@qmu.ac.uk

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# Audiology training in Australia

There are many different ways to become an audiologist throughout the world and it is interesting to see how different some of the training routes can be. **Wayne Wilson**, an Associate Professor and the Head of Audiology at The University of Queensland, provides an overview of the profession in Australia.

udiology is a self-governed healthcare profession in Australia. Its main governing body is Audiology Australia, which itself is part of Allied Health Professions Australia and the National Alliance of Self Regulating Health Professions. Audiology Australia oversees the practice of audiology at three levels. First, it accredits university audiology programmes by way of quinquennial audits of each programme against the core knowledge and competencies it expects of graduate audiologists in Australia. Second, it requires graduates of university audiology programmes to complete a graduate internship in the workplace as part of the graduate's first year of full-time work. Third, it requires its members to adhere to its code of conduct and professional practice standards and to complete an annual cycle of continuing professional development.

Audiology training programmes are offered by six universities in Australia (see Table 1) and are typically associated with other health science and therapy programmes and housed within the health science faculties of the respective institutions. All are delivered at postgraduate level over two years (four semesters) with graduates being awarded Master of Audiology degrees. Entry is competitive, based on grade-point averages from previously completed undergraduate degrees with most programmes accepting students from a wide range of fields. The ratio of domestic and international students ranges from approximately 5:1 to 10:1, with the programmes currently proving particular popular amongst students from Canada, India, many countries in Southeast Asia, and New Zealand (many of which have their own, excellent, heavily-subscribed audiology programmes). Historically, audiology programmes in Australia have progressed from initially being offered by the Australian Government as a professional training programme in the 1940s to being offered by universities as part of a Bachelor of Speech

Table 1. Oniversities in Australia offering master of Audiology degrees			
University	City, State	Approximate annual student intake	Web link
Flinders University	Adelaide, South Australia	25	www.flinders.edu.au/sohs/sites/audiology/
LaTrobe University	Melbourne, Victoria	40	www.latrobe.edu.au/courses/master-of-clinical- audiology
Macquarie University	Sydney, New South Wales	60	https://courses.mq.edu.au/2018/domestic/ postgraduate/master-of-clinical-audiology
The University of Melbourne	Melbourne, Victoria	70	https://coursesearch.unimelb.edu.au/grad/950- master-of-clinical-audiology
The University of Queensland	Brisbane, Queensland	40	https://future-students.uq.edu.au/study/program/ Master-of-Audiology-Studies-5145
The University of Western Australia	Perth, Western Australia	25 (biennially)	https://study.uwa.edu.au/courses/master-of- clinical-audiology

Pathology in the 1960s, as a stand-alone Postgraduate Diploma in the 1970s, and as the current Masters of Audiology since the late 1990s. At present, there appears to be no intent to elevate these programmes to the level of a Clinical Doctorate.

While the academic training provided by all university programmes in Australia shares the common need to teach and assess the core knowledge and competencies required by Audiology Australia, the manner in which this occurs varies. Some programmes offer a more 'traditional' approach of regular lectures, tutorials, practicals and clinical placements over the course of each semester. Others compress lectures, tutorials and practicals into blocks at the beginning of each semester, with clinical placements completed over the remainder of each semester. Yet others offer a problem-based learning curriculum whereby students attend few lectures, tutorials and practicals and instead work through progressively more complex clinical cases designed to sequentially elicit the learning points needed to complete the degree. Such variability gives prospective students of audiology the opportunity to choose a programme that best suits their life circumstances and learning style.

The clinical training provided by all university programmes in Australia shares the common need to provide each student with a minimum of 250 clinical contact hours (that typically translates into approximately 400 to 500 hours spent generally in clinics). These clinical contact hours are broken down into types: adults or paediatric and direct, indirect or professional. Minimum numbers of hours are required in each category and observation hours cannot be counted. Clinical placements begin early in most programmes, with students typically completing simpler clinical tasks such as basic audiological assessments of cooperative adults or older children. These placements then steadily progress in complexity to see students rotate through the full range of clinical settings by the end of their programmes. This includes placements in adult and paediatric clinics in public and private settings across a wide range of audiology services including tele-audiology. While many of the clinical placements will occur in the large, urban centres near to where the audiology programmes are located, others will occur in regional, rural and remote locations. This can include outback Australia and islands off the coasts of Australia, as well as placements in other countries, with New Zealand and Canada currently being popular destinations for some students.

Providing audiology students with enough placements across the full range of services remains a particular challenge for audiology programmes in Australia. To address this challenge, the programmes have worked together to introduce a range of simulated learning environments (SLEs) to bridge the gap between academic training and clinical placements. These SLEs range from the use of standardised patients, mannequins and computerbased simulations to teach and assess task-specific audiological skills, through to the creation of entire clinics that simulate audiology rooms, hospital wards, and even stand-alone audiology practices. An overarching principle of these SLEs is to provide a safe environment for students to begin to develop their core knowledge and competencies in environments that feel like real clinics. All the SLEs allow students to experience the role of the audiologist and the client/patient. Others see the client/patient played by professional or amateur actors, puppets, mannequins or computer-based simulations. First year audiology students report these SLEs give them the opportunity to master their technical skills before progressing to their early placements in real clinics. Second year audiology students report these SLEs allow them to practise the skills needed to manage complex audiological cases in an environment where their mistakes do no harm.

In addition to completing their academic and clinical audiology training, students must also complete substantial research



Figure 1. Audiology student completing video otoscopy on a child while on placement in outback Australia



Figure 2. Audiology students completing hearing screening at a local school.



Figure 3. Audiology students completing wideband absorbance measures on a neonate in a hospital setting.



Figure 4. Audiology students and staff completing an ABR assessment of a neonate (mannequin) in a simulated hospital ward.

training. This progresses from courses on research design and statistics to students completing their own research projects. The aim of this training is to ensure all audiology graduates remain critical users of research literature and active clinician researchers throughout their careers. It also gives all graduates the opportunity to return to university to complete a PhD should they seek a career as an academic or research audiologist.

Once students have graduated from an audiology programme, they must complete a one-year clinical internship in their workplaces if they want to practice as an Audiology Australia accredited audiologist. This sees graduates receive graded supervision from existing accredited audiologists in their workplace to both further develop their clinical skills and assess their progress towards becoming an independent and confident clinician. Graduates who complete this internship receive the title of accredited audiologist and can practice independently across all audiology services in Australia (particularly those offered by national and state government services).

Overall, audiology training programmes in Australia seek to graduate audiologists at the Masters level who meet the core knowledge and competency requirements of Audiology Australia. These graduates will have a range of experiences across the spectrum of audiological practice and will be ready to contribute to their professional both nationally and internationally.

#### Weblinks

Audiology Australia: https://audiology.asn.au/Home

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My thanks to many staff from all the university audiology programs in Australia for their input.



Picture 5. Audiology students and staff in their university's tele-audiology clinic audiological assessment of a patient in a hospital approximately 1000kms away.

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#### AUTHOR



#### Wayne Wilson, PhD,

Associate Professor and Head of Audiology, School of Health and Rehabilitation Sciences, Faculty of Health and Behavioural Sciences, The University of Queensland 4072, Australia.

E: w.wilson@uq.edu.au

Declaration of competing interests: None declared.

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