Auditory and Language Neuroscience, MS
NHALNEUMS

This unique program equips you with the tools to conduct cutting-edge neuroscience research related to auditory and language processes.

Program Description

Degree Awarded: MS Auditory and Language Neuroscience
The MS program in auditory and language neuroscience trains scholars in basic and applied research in the fields of auditory and language neuroscience to prepare them for doctoral-level graduate studies as well as for positions in science, health care and industry.

In addition to innovative coursework in neuroscience, this program includes hands-on training in instrumentation such as neuroimaging, neurophysiology and clinical research applications. Students develop a strong foundation that enables them to conduct impactful neuroscience research related to auditory and language processing and human communication.

At a Glance

- College/School: College of Health Solutions
- Location: Tempe campus

Accelerated Program Options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's and master's degree with:

Speech and Hearing Science, BS

Acceptance to the graduate program requires a separate application. During their junior year, eligible students are advised by their academic departments to apply.
Degree Requirements

31 credit hours including a thesis, or
31 credit hours including an applied project course (SHS 593)

Required Core (6 credit hours)
SHS 541 Data Analysis in Auditory and Language Neuroscience (3)
SHS 542 Applied Research Methods in Auditory and Language Neuroscience (3)

Restricted Electives (12 credit hours)

Research (6 credit hours)
SHS 592 Research (6)

Other Requirement (1 credit hour)
SHS 590 Reading and Conference (1)

Culminating Experience (6 credit hours)
SHS 593 Applied Project (6) or
SHS 599 Thesis (6)

Additional Curriculum Information
For restricted electives, students should see the academic unit for an approved course list.

Admission Requirements

Applicants must fulfill the requirements of both the Graduate College and the College of Health Solutions.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree, in any field, from a regionally accredited college or university.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. three letters of recommendation
4. letter of intent or written statement
5. professional resume
6. proof of English proficiency

**Additional Application Information**
An applicant whose native language is not English must provide proof of English proficiency regardless of current residency.

In the letter of intent or written statement, applicants should indicate potential research mentors with whom they are interested in working. Letters of recommendation preferably are written by instructors, research mentors or clinical supervisors who can speak to the applicant's aptitude for research and master's-level coursework.

**Application Deadlines**

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**Program Learning Outcomes**

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:

- Critically analyze and synthesize knowledge from the neuroscience research literature related to language and/or hearing.
- Demonstrate competence in experimental design, data collection, data analysis, and interpretation of neuroscience research related to language and/or hearing.
- Identify and describe principles and concepts related to the responsible conduct of research.

**Career Opportunities**

Graduates have acquired the experience with clinical and medical applications of their neuroscience-related expertise and the skills gained in lab rotations that give them increased marketability and enable them to be competitive for jobs in technology or for further doctoral level training.

In the tech field, there has been significant interest in the areas of deep learning and artificial intelligence for speech. These fields rely on computational models of speech perception and production to perform automated tasks such as speech and speaker recognition.

Employment opportunities for graduates include team settings in clinical research centers and hospitals; with manufacturers of hearing aids, cochlear implants and EEG systems or augmentative and alternative communication applications; and with software development companies working with speech recognition programs and brain-computer interfaces.

Career examples include:

- data analyst
• educator
• laboratory technician or manager
• product developer
• public relations specialist or spokesperson for a research institute or device manufacturer
• research scientist

Contact Information

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