Speech and Hearing Science (Auditory and Language Neuroscience), PhD

Language is a complex and uniquely human brain function. With training in innovative research methods like neuroimaging and electrophysiology, you can become poised to make discoveries regarding how the brain processes language and sound. Benefit from personalized mentorship and hands-on experience in research, teaching and service offered by expert faculty.

Program Description

Degree Awarded: PHD Speech and Hearing Science (Auditory and Language Neuroscience)
The auditory and language neuroscience concentration within the PhD program in speech and hearing science trains scholars in basic and applied research in the fields of auditory and language neuroscience. Students develop a strong foundation from which to conduct impactful neuroscience research related to healthy auditory and language abilities as well as the neural bases of communication disorders.

This program's faculty are in a unique position to provide this integrated training experience because of the program's focus on innovative approaches to the field of speech, language and hearing science. Faculty backgrounds include engineering, neuroscience and psychology in addition to expertise in speech-language pathology and auditory neural prosthetics.

At a Glance

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

Degree Requirements
84 credit hours, a written comprehensive exam, an oral comprehensive exam, a prospectus and a dissertation

**Required Core (2 credit hours)**
SHS 701 Scientific Writing and Presentation in Communication Sciences and Disorders I (1)
SHS 702 Scientific Writing and Presentation in Communication Sciences and Disorders II (1)

**Concentration (12 credit hours)**

**Research (21 credit hours)**
SHS 792 Research (12)
research methods and statistics (9)

**Electives or Additional Research (28 credit hours)**

**Other Requirements (9 credit hours)**
SHS 790 Reading and Conference Professional Seminars (9)
preliminary exam (0)
comprehensive exams (0)

**Culminating Experience (12 credit hours)**
SHS 799 Dissertation (12)

**Additional Curriculum Information**
The concentration courses focus on issues related to auditory and language neuroscience. These credit hours may be accomplished in regular graduate-level (500+) courses or in special topic seminars and independent studies. The student's program committee guides selection of these courses, which may be focused on a broad base of areas related to auditory and language neuroscience.

Students should see the academic unit for approved concentration courses, professional seminars for SHS 790, research and electives. Other research and electives courses may be used with approval of the academic unit.

The preliminary exam research project is to be in the field of auditory or language neuroscience, or in both. Each student gives a formal presentation of their prospectus to their program committee. The defense for the preliminary exam research project includes a written document of the research project and an oral defense. This formal research experience during the first three semesters of the program provides students with a jumpstart into research, preparing the student for their subsequent dissertation research.

The comprehensive exams entail a written examination and an oral examination. The written exam takes one of the following formats: students write responses to questions posed by each committee member or students complete a written paper for each member of the committee.

For the proposed concentration, at least two of the three questions, or topics for the written papers, posed by the committee members must be focused in the area of auditory or language neuroscience, or in both. The comprehensive examination committee evaluates the written paper and the oral defense during a closed meeting with the student.
When approved by the student's supervisory committee and the Graduate College, this program allows 28 credit hours from a previously awarded master's degree to be used for this degree. If students do not have a previously awarded master's degree, the 28 credit hours of coursework is to be made up of electives and research.

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 degree in a related field and do not wish to earn a clinical master's degree, or if they have earned a master's degree or equivalent in speech and hearing science, psychology, linguistics, or a related discipline from a regionally accredited institution.

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 of undergraduate and graduate study
3. application cover letter and personal statement
4. three letters of recommendation
5. resume or curriculum vitae
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. We welcome international applicants and have a strong record of training international students in our program. For all applicants of graduate programs at ASU, English proficiency is a requirement. There are several different avenues to demonstrate English proficiency, including through previous academic experiences in English, standardized tests, or through online courses. Please refer to ASU's Graduate College English proficiency requirements for more details about English proficiency requirements.

Professional letters of recommendation should be from three individuals who can speak to one or more of the following: academic performance, clinical performance, or potential to succeed in a research-intensive doctoral program. The letter writers are typically faculty, clinical or research supervisors. If the applicant has spent some time away from research or academia, it is still recommended to have some letters from those experiences, in addition to a more recent clinical or research supervisor.
In addition to uploading a letter of recommendation, letter writers are asked to rate the applicant on the following:

- academic performance
- analytical skills
- creativity and originality
- emotional maturity
- honesty and integrity
- intellectual potential
- mathematical and statistical skills
- motivation to complete a PhD
- oral communication skills
- promise as a researcher in the discipline
- working with others
- written communication skills.

Letter writers also are asked to respond to the following short answer questions or prompts:

- What is the context in which you have known the applicant?
- Describe instances where you have seen this person go above and beyond?
- Do you have any reservations about this applicant? If yes, what are they?
- Describe an instance where you have seen the applicant demonstrate technical, analytical or problem-solving skills.
- Would you admit this applicant to our PhD program? Why or why not?
- Please provide any additional comments regarding the applicant’s potential.

The personal statement, typically one or two double-spaced pages, should address the student’s motivation to pursue a PhD with a specific faculty mentor in the program and include evidence of potential to succeed in a research-intensive doctoral program and goals for the future. Examples of evidence of potential to succeed include technical skills, clinical experiences, and research achievements and interests.

**Application Deadlines**

**Fall**

**Career Opportunities**

Doctoral-level scientists in the field of speech and hearing science are well situated to pursue positions in which they can lead independent research programs, such as a university professor or research scientist in the private or public sectors. There is a particular need for doctorate-level scientists with speech-language pathology or audiology backgrounds in tenure-track academic positions.
Career examples include:

- lecturer
- professor
- program officer in a nonprofit or government agency
- research analyst
- research scientist

Contact Information

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Admission Deadlines