Speech and Hearing Science  
(Translational Genetics of Communication Abilities), PhD

Join a sought-after cohort of specialists equipped to investigate the genetic foundations of communication behaviors. Understand communication abilities from typical processes to disorders through cross-training in communication sciences, disorders and genetics. Benefit from the personalized mentorship and hands-on experience in research, teaching and service offered to you by expert faculty.

Program Description

Degree Awarded: PHD Speech and Hearing Science (Translational Genetics of Communication Abilities)

The translational genetics of communication abilities concentration within the PhD program in speech and hearing science provides doctoral students with training in an innovative approach to the clinical sciences, pioneered at ASU, in which the concepts of precision medicine are applied to all disciplines within communication sciences and disorders. Training in molecular genetics and bioinformatics equips students to investigate the interactions among genetic, brain-based and behavioral traits. Prior training in genetics is not required.

Knowledge of genotype-phenotype associations provides the foundation for the translational components of this program: early identification and intervention, individualized management and interprofessional approaches. Students have the option of focusing primarily on basic sciences aspects, on clinical translations, or both.

This program leverages strong research and clinical expertise at ASU’s College of Health Solutions across clinical linguistics and its expertise in the biosciences and translational clinical sciences. Collaborating units at ASU include the Biodesign Institute, the School of Life Sciences and the College of Health Solutions, as well as many subspecialties such as bioinformatics, the Department of Psychology and many others.
Upon completion of this doctoral concentration, graduates have the skills to discover and understand networks of genotype-phenotype associations and to contribute to more effective clinical management of communication disorders using preventative, targeted and interprofessional methods.

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 translational genetics. These credit hours may be accomplished in regular graduate-level courses (500-level and higher) 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 translational genetics. All doctoral graduates with this concentration are required to have foundational knowledge in genetics.
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 within the field of translational genetics of communication abilities. 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.

Prior to commencing dissertation research, the student must pass a comprehensive written examination covering their field of study, which must be orally defended.

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 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
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. International applicants are welcomed as this program has a strong record of training international students. 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. Students should 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 include motivation to pursue a PhD with a specific faculty mentor in the program, 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

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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