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

Join a small, highly sought-after cohort of specialists equipped to investigate the biological foundations of communication behaviors and come to understand the full spectrum of communication abilities from typical processes (e.g., acquiring multiple languages) to disorders (e.g., dyslexia, hearing impairment), through advanced cross-training in communication sciences and disorders and genetics.

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) where 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 on both.

This program leverages ASU’s strong research and clinical expertise 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, the College of Health Solutions with its 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

**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 will guide 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.

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 30 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 30 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. GRE scores
5. three letters of recommendation
6. resume or curriculum vitae
7. proof of English proficiency

**Additional Application Information**

An applicant whose native language is not English (regardless of current residency) must provide proof of English proficiency.

Applicants must demonstrate a strong interest in translational genetics as indicated in the applicant's written statement of academic and professional goals.
Typically, applicants have completed a master's or AuD degree or equivalent in speech and hearing science, psychology, linguistics or a related discipline. Applicants with a bachelor's degree, strong research interests and a strong academic record also will be considered. Applicants who wish to study the genetics of a certain communication disorder but lack undergraduate or graduate level training in communication disorders are required to take relevant courses in the college.

Students should see the program website for application deadlines.

Professional letters of recommendation must be from three individuals who are familiar with the applicant's academic record and should contain contact information for the recommenders.

**Application Deadlines**

Fall

**Global Opportunities**

PLuS Alliance
Global Experience
Global Degree

**Career Opportunities**

**Contact Information**

College of Health Solutions | HLTN 401AA
CHSGrad@asu.edu | 602-496-3300
Admission Deadlines