



Student Handbook

**Ph.D. in
Speech and Hearing Science
2021-2022
Arizona State University**

Justice, equity, diversity and inclusion at the College of Health Solutions

At the College of Health Solutions, we are focused on improving the health of the communities we serve. Every student, every faculty and staff member, every individual and community member should have the opportunity for better health throughout their lifespan. To improve health, we must embrace and support greater diversity, equity and inclusivity in everything we do, including teaching, research and service. We are committed to doing better. You are welcome at the College of Health Solutions, and this is what you can expect from us.

Commitments to justice, equity, diversity and inclusion

We create leaders who advance the principles of justice, diversity, equity and inclusion, shaping a future in which all community members can fully realize their potential.

We embed diversity, equity and inclusion as a transformational force in every aspect of our teaching, research and service as we work to address the challenges facing people and communities to stay healthy, improve their health and manage chronic disease.

We believe that diversity and inclusion are essential for excellence and innovation, and thus it is stated in our college values: We maximize opportunities for people of diverse backgrounds, abilities and perspectives.

We support underrepresented and historically marginalized groups, and will not tolerate discrimination or hate of any kind.

Title IX

ASU prohibits all forms of discrimination, harassment and retaliation. To view ASU's policy please see <https://www.asu.edu/aad/manuals/acd/acd401.html>.

Title IX protects individuals from discrimination based on sex in any educational program or activity operated by recipients of federal financial assistance. As required by Title IX, ASU does not discriminate on the basis of sex in the education programs or activities that we operate, including in admission and employment. Inquiries concerning the application of Title IX may be referred to the Title IX Coordinator or to the U.S. Department of Education, Assistant Secretary, or both. Contact titleixcoordinator@asu.edu or 480-965-0696 for more information. Office located at 1120 S. Cady Mall, INTDSB 284. For information on making a report please go to www.asu.edu/reportit/.

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INTRODUCTION

This handbook provides a summary of the requirements of the Ph.D. in Speech and Hearing Science at Arizona State University (ASU). The program is administered through the College of Health Solutions. The Ph.D. is an academic research degree designed to prepare scholars for careers in basic and applied research. In addition to the traditional Ph.D. program, two areas of concentration are described below, “Auditory and Language Neuroscience” and “Translational Genetics of Communication Abilities.” The Ph.D. degree is granted upon evidence of excellence in research and the demonstration of independent, creative scholarship.

ADMISSIONS

Applicants to the Ph.D. program must meet all ASU Graduate Admission [requirements](#) and additional program requirements summarized below.

Admission to the program is competitive. Applications are considered primarily for fall admission. Typically applicants will have completed a master's or Au.D. 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 will also be considered. For applicants with a doctoral degree in audiology (Au.D.), see the section titled “Description and Expected Timeline for the Post-Au.D. Ph.D.” on page 19 for additional information.

All application materials are submitted [online](#). Note that Graduate Admission requires payment of a nonrefundable application fee. International students must meet [additional admissions requirements](#).

Ph.D. applications are reviewed beginning **December 15th** for subsequent fall admission. Applications received after this date will be reviewed; however, applicants are advised that funding availability is limited and typically awarded to applicants who submit their completed application by the December 15th deadline.

Applications are first reviewed by Graduate Admission. Complete applications are reviewed by the Ph.D. admission committee and the Speech and Hearing Science Graduate Faculty. Criteria for admission include:

- Evidence of excellence in scholarship and research potential based on previous academic record and research and/or clinical experiences.
- Professional goals compatible with a Ph.D. degree
- Scholarly interests compatible with one or more Speech and Hearing Science Graduate Faculty
- Agreement by at least one member of the Graduate Faculty to serve as the primary mentor and chair of the student's Program Committee.

The Ph.D. Committee selects students for admission and prioritizes funding based on the quality of materials presented in the Ph.D. application. All applicants should complete a Federal Student Aid (FAFSA) application to be eligible for federal grants, scholarships, and fellowship opportunities. Complete the FAFSA at the same time you apply to ASU. Ask that FAFSA results be sent to ASU. Instructions are available [here](#).

Transcripts

All applicants must submit [official transcripts](#) from all post-secondary institutions previously attended.

Grade Point Average (GPA)

Top applicants will have maintained a 3.0 GPA or higher (on a 4.0 scale) in the last 60 semester hours or 90 quarter hours of undergraduate/graduate coursework; However, if you do not meet the minimum GPA requirements your application may still be considered.

Resumé or Curriculum Vitae

Please submit an up-to-date resume or curriculum vitae that includes your educational history, employment history, presentations and publications, and the name, mailing address, phone number, and email address for three academic references.

Application Cover Letter and Goals Statement

A cover letter of approximately 1-2 pages (double spaced) requesting admission to the Ph.D. program should include your motivation to pursue a PhD with a specific faculty mentor in our program, evidence of your potential to succeed in a research-intensive doctoral program, and your goals for the future. Examples of evidence of your potential to succeed include technical skills, clinical experiences, and research achievements and interest.

Letters of Recommendation

Provide three letters of recommendation from individuals who are qualified to comment on your potential for success in a Ph.D. Program. These letters of recommendation should be from three individuals who can speak to one or more of the following: your academic performance, clinical performance, or potential to succeed in a research-intensive doctoral program. The letter writers are typically faculty or clinical/research supervisors. If you have spent some time away from research and/or academia, it is still recommended that have some letters from those experiences, in addition to a more recent clinical or research supervisor.

Publications or Writing Samples

Please include any publications, research manuscripts, or a sample of your academic writing.

English Proficiency

All applicants whose native language is not English must provide evidence of English proficiency. Information about the tests, minimum score requirements and test expiration dates may be found [here](#).

Mentor(s)

The Ph.D. Program in Speech and Hearing Science is a mentor-based program. A student will not be admitted if no faculty member agrees to be their mentor. Therefore, you are encouraged to identify potential mentors *prior* to submitting your application materials and to visit with potential mentors virtually or in person to discuss your mutual research interests. This will allow you to consider important factors that may affect your decision to continue with your application. A list of tenure-track faculty who may serve as primary mentors is available [here](#).

Areas of Concentration

In addition to our traditional interdisciplinary Ph.D. program where you design your program of study in conjunction with your mentor(s), we offer two areas of concentration described below.

Auditory and Language Neuroscience

The Auditory and Language Neuroscience concentration provides Ph.D. students integrated, intensive

training in neuroscience approaches to the investigation of human communication disorders. Future treatments for many communication disorders rely heavily upon neuroscience, including biological interventions, neural prosthetics, and pharmacological interventions in addition to individualized behavioral therapies. This concentration is based on an integrated approach in which speech, language, and hearing are all viewed as critical areas in students' academic and research training. Students will have the opportunity to conduct research projects and gain expertise through coursework and research experiences in neuropsychology, neurophysiology, neuroimaging, biological signal processing and/or psychoacoustic approaches to the field of speech, language and hearing science. Our department is in a unique position to provide this interdisciplinary training experience. Our faculty's backgrounds include engineering, neuroscience, and psychology, in addition to world-class expertise in speech-language pathology and auditory neural prosthetics.

See Appendix A for a list of faculty mentors who participate in the Auditory and Language Neuroscience concentration. See Appendix B for list of sample courses that could be used to fulfill the concentration units.

Translational Genetics of Communication Abilities

The Translational Genetics of Communication Abilities concentration provides PhD students pioneering dual training in genetics and communication behaviors. Expertise in molecular genetics and bioinformatics equips students to investigate genetic etiologies and their downstream effects on cognitive and behavioral phenotypes inclusive of all levels of functioning from typical to disordered. Knowledge of genotype-phenotype associations provides the foundation for the translational components of this program: early identification and intervention, individualized management, and inter-professional approaches. This concentration leverages our strong research and clinical expertise across biosciences and translational clinical sciences. It closely interfaces with the Auditory and Language Neuroscience concentration by studying genetic effects on brain structures and functions to enhance our understanding of biological substrates. Program graduates will have the skills to understand and use techniques to build a network of genotype-phenotype associations and contribute to more effective clinical management of communication disorders using preventative, targeted, and inter-professional methods.

See Appendix C for a list of faculty mentors who participate in the Translational Genetics of Communication Abilities concentration. See Appendix D for list of sample courses that could be used to fulfill the concentration units.

PH.D. PROGRAM DESCRIPTION

General Requirements

A minimum of 56 semester hours of graduate work is required beyond the master's or Au.D. degree or 84 semester hours of graduate work beyond the bachelor's degree.

- Undergraduate students accepted into the Speech and Hearing Science program are required to take 27 to 36 semester hours of Au.D. coursework (four semesters) in lieu of a Master's in passing. **We do not offer a master's degree in passing.** This coursework does not fulfill the requirements for clinical certification (CCC-A). Students wishing to complete the requirements for ASHA certification of clinical competence in audiology must apply to the Au.D program.
- Undergraduate students accepted into the Speech and Hearing Science Ph.D. program will not earn a master's degree. **We do not offer a master's degree in passing.** If you wish to earn your clinical

master's degree in addition to a Ph.D. you must apply to and be accepted into the master's in communication disorders program. When you are nearing completion of that degree you can apply to the Ph.D. program.

Required credits beyond a master's degree include a *minimum* of

- 12 credits in an area of concentration
- 9 credits of research methods and statistics (must earn an A or B in each course and must successfully complete at least one statistics course during the first year). A data management course does not qualify as a research methods or statistics course.
- 11 credits of doctoral professional seminars; the following seminars are required:
 - Scientific Process I: Research Review & Development (SHS 701; 1 unit, taken in spring of year 1)
 - Scientific Process II: Research Writing and Presentation (SHS 702; 1 unit, taken in fall of year 2)
 - Writing Group (SHS 790; 1 unit, taken in spring of year 2)
 - Speech and Hearing Science Colloquium (attendance is required every semester of enrollment, required to register for SHS 790 Colloquium course (SHS 790; 1 unit) at least once, enrollment includes delivering a research presentation and participation in inviting speakers)
 - Designing, Managing and Sharing Your Research Data (SHS 790; 1 unit, typically offered every other year)
 - Competencies of **teaching, grant writing, and career development (see p. 9)**
- 12 credits of research prior to the dissertation (SHS 792)
- 12 credits of dissertation research (SHS 799 Dissertation)
- A minimum of 30 hours of the approved Ph.D. Program, exclusive of dissertation and research hours, are to be completed at ASU.
- Students transferring from a doctoral program at another institution may petition the Ph.D. Committee to accept up to six transfer credits for application to the program of study.

Full Time or Part Time Status

Students admitted to the Ph.D. Program are expected to enroll in 9 to 12 credits per semester (full time status) until passing their Comprehensive Examination. In rare circumstances, students who wish to take fewer than 9 credits per semester may be admitted to the program with written approval by their mentor(s) and the Ph.D. Committee. In this case, a program of study, including a **detailed timeline**, must be formulated by the student's primary mentor and submitted to the Ph.D. Committee for approval during the student's first semester. Students enrolled on a part-time basis must complete their preliminary exam project proposal by the end of their second semester of study and their preliminary exam project defense by the end of their third semester of study, regardless of part-time status.

CONTINUOUS ENROLLMENT

Once admitted to a graduate degree program or graduate certificate program, students must be registered for a minimum of one credit hour during all phases of their graduate education, including the term in which they graduate. This includes periods when students are engaged in research, conducting a doctoral prospectus, working on or defending theses or dissertations, taking comprehensive examinations, taking Graduate Foreign Language Examinations, or in any other way utilizing university resources, facilities or faculty time.

Registration for every fall semester and spring semester is required. Summer registration is required for students taking examinations, completing culminating experiences, conducting a doctoral prospectus,

defending theses or dissertations, or graduating from the degree program.

To maintain continuous enrollment the credit hour(s) must:

- Appear on the student's *Plan of Study*, OR
- Be research (592, 792), thesis (599), dissertation (799), or continuing registration (595, 695, 795), OR
- Be a graduate-level course.

Grades of "W" and/or "X" are not considered valid registration for continuous enrollment purposes. "W" grades are received when students officially withdraw from a course after the drop/add period. "X" grades are received for audit courses. Additionally, students completing work for a course in which they received a grade of "I" must maintain continuous enrollment as defined previously. Graduate students have one year to complete work for an incomplete grade; if the work is not complete and the grade changed within one year, the "I" grade becomes permanent. Additional information regarding incomplete grades can be found at asu.edu/aad/manuals/ssm/ssm203-09.html.

Absence from the Program

Periods of absence during a semester must be approved by the student's program committee. If a program of study must be interrupted for one semester, the student may apply for a leave of absence through their iPOS. However, this leave status cannot exceed two semesters, not including summer. An application for leave status, endorsed by the members of the student's program committee and the Program Director must be approved by the Dean of the Graduate College. This request must be filed and approved **before** the anticipated semester of non-registration.

Academic Integrity

The highest standards of [academic integrity](#) are expected of all graduate students, both in academic coursework and in research and clinical activities. Graduate students must follow university guidelines related to the Student Code of Conduct. University policies related to academic integrity and code of conduct are available in the Office of Student Life or [online](#). Additional information can be found in the CHS graduate student [website](#).

Violation of the academic integrity policy will result in a grade of E for the course in which the violation occurred. In addition, a single violation may result in a recommendation to the Graduate College for dismissal from the program. More than one violation of the academic integrity policy will result in a recommendation to the Office of Graduate Education to dismiss the student from the program.

Specific Ph.D. Program Requirements

Annual Ph.D. Student Individual Development Plan and Progress Report

We expect students to finish their doctoral training in four years (see Table 1 below). This is important for funding and for professional reasons.

By **September 1st** during the first year of study the student and his/her mentor should complete an Individual Development Plan (a google form for the plan will be emailed by the Program Director to all students by early August). This plan is tailored to each student's individual interests and must be updated by September 1st each year in conjunction with the mentor to best meet the student's educational goals.

The coursework portion of the plan should include (1) classes in one or more areas of concentration; (2) classes to meet the research methods and statistics requirement; (3) enrollment in professional seminars; and (4) fulfillment of the research credit requirements. The Individual Development Plan also includes a list of milestones and their anticipated completion dates as well as planned research, teaching, and service activities.

By **March 1st** each year of study the student and his/her mentor should complete the Ph.D. Student Progress Report and submit this to the Ph.D. Committee (a google form for the plan will be emailed by the Program Director to all students by early February). Funding decisions for the following year will be based, in part, on the student’s progress in the program.

Program, Preliminary Exam, Comprehensive Exam, and Dissertation Committees

The Program Committee consists of the chair (typically the student’s mentor) and at least two other members of the Speech and Hearing Graduate Faculty. The purpose of this committee is to guide the student through the completion of the individual program of study, the initiation of programmatic research, the preliminary examination, and the comprehensive examination. Faculty from other departments and schools may be approved as Speech and Hearing Graduate faculty for the purpose of serving on student committees. The composition of the Program Committee should reflect both the range and depth of the student’s academic focus areas and will often include members from other academic disciplines. The Program Committee will constitute the Preliminary Exam Committee. Upon completion of the preliminary exam, the committee may continue and serve as the Comprehensive Examination Committee or different faculty may be selected to serve on the Comprehensive Examination Committee. Upon completion of the comprehensive examination a Dissertation Committee will be formed that may include some or all of the members of Comprehensive Examination Committee.

Table 1. Expected Timeline for Achieving Doctoral Program Milestones							
Fall 1	Spring 1	Fall 2	Spring/Smr 2	Fall 3	Spring 3	Fall 4	Spring/Smr 4
<ul style="list-style-type: none"> • Create Individual Development & Progress Plan by Sept. 1 	<ul style="list-style-type: none"> • Pass Preliminary Exam Prospectus • Complete Progress Report Form by March 1 	<ul style="list-style-type: none"> • Pass Preliminary Exam Defense • Update Individual Development Plan by Sept. 1 	<ul style="list-style-type: none"> • Pass Oral/ Written Comps • Update Progress Report Form by March 1 	<ul style="list-style-type: none"> • Update Individual Development Plan by Sept. 1 	<ul style="list-style-type: none"> • Pass Dissertation Prospectus • Update Progress Report Form by March 1 	<ul style="list-style-type: none"> • Update Individual Development Plan by Sept. 1 	<ul style="list-style-type: none"> • Defend Dissertation • Update Progress Report Form by March 1

Areas of Concentration

Concentration Courses. Twelve semester units are required in an area of concentration that focuses on issues related to human communication and its disorders (e.g., child language disorders; neurogenic communication disorders; language development; motor control; human biology; linguistics; auditory processing). These units may be completed in regular graduate-level (500+) courses 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 speech, language, and hearing. For the Auditory and Language Neuroscience concentration, 12 units of courses related to auditory and/or language

neuroscience are required. A maximum of six of these credits can be earned in independent studies. Analogous requirements apply to the Translational Genetics of Communication Abilities concentration. See Appendices B and D for the respective list of courses for concentrations.

Research Methods and Statistics. Students are required to demonstrate proficiency in (a) research methods (e.g. research design, statistics) by successfully completing one or more *graduate-level* courses in research design and (b) at least two additional *graduate-level* courses in statistics taken during enrollment in the Ph.D. Program. We highly recommend completion of 12 units of research methods and statistics.

Research Methods Requirement. The research method requirement may be satisfied by completing graduate-level research methods courses in approved departments.

Statistics Requirement. Relevant course sequences to satisfy the statistics requirement are offered in a number of departments on campus. These include but are not limited to courses such as Analysis of Variance, Multiple Regression, Multivariate Data, Structural Equations, Applied Regression Analysis, Applied Analysis of Variance, Applied Multivariate Analysis, and Hierarchical Linear Modelling.

The student, along with his/her advisor, will select a sequence that is most appropriate for the type of research he/she intends to conduct. It is the responsibility of the student's Program Committee to ensure that the student has attained a level of mastery necessary for embarking on an independent research career. The Program Committee may determine that a student is exempt from this requirement because of achievements in previous educational or professional capacities.

Responsible Conduct of Research and Academic Integrity

During the first semester of enrollment, students must successfully complete the responsible conduct of research and academic integrity training. Information on options of how to complete this training will be provided during new PhD student orientation. Training typically includes online or in-person workshop(s) and completion of ASU's Internal Review Board's Human Subjects Training online course.

Protection of Human Subjects

All research activities involving the use of human or animal subjects must be reviewed and approved by ASU's Internal Review Board (IRB) before data collection can begin. Students may not solicit subject participation or begin data collection until they have received approval from their mentor and written approval from the IRB. Click [here](#) for IRB submission guidelines.

Professional Seminars

The Speech and Hearing Science PhD Faculty are committed to producing graduates who are well-trained in all aspects of their future careers in the field. To this end, students are required to complete at least 11 credits of doctoral professional seminars. Twelve seminar credits may be applied toward the 56 credits required for the Ph.D. degree. In addition to the required professional seminars listed above under "general requirements", professional seminar courses fulfilling the competencies of **teaching, grant writing, and career development** must also be completed:

Teaching. The teaching competency can be met by successfully completing one of the following courses:

- Effective Course Development, Teaching, & Mentoring (SHS 790; 1 unit, typically offered every other fall)

- Independent study teaching preceptorship
- Other courses may be approved by the Program Director to fulfill the teaching competency.

Grant Writing. The grant writing competency can be met by successfully completing one of the following courses:

- SHS 790 Grant Writing Practicum (1-3 units, independent study with the student's faculty mentor resulting in a complete grant application, can be repeatedly taken in multiple semesters for additional grant applications)
- CHS 791 Grant Writing (1 unit)
- Other courses may be approved to fulfill this grant writing competency. To be considered for approval, they must include the student producing at least one major component of a grant proposal, if not a full grant proposal.

Career Development. The career development competency can be met by successfully completing one of the following courses:

- GRD 791 Preparing Future Faculty (2 units total; often 1 unit in fall session A, 1 unit in fall session B)
- Other approved courses focused on preparing students for entering academic and industry careers

Other doctoral professional seminars tailored to a student's specific interests should be taken to complete the remaining required 11 units of professional seminars that are not fulfilled as part of the required professional seminars or achieving the teaching, grant writing, and career development competencies.

Some examples include:

- Any of the seminars listed above that are not already being used to fulfill a competency
- SHS 790 Speech and Hearing Science Colloquium (enrollment is required for one semester, but can be taken for credit up to 3 semesters)
- SHS 590 Responsible Conduct of Research and Academic Integrity
- EXS/NTR 791 Doctoral Seminar
- PSY 502 Professional Issues in Psychology
- BME 591 Bioengineering Seminar
- Other courses can be approved that are focused on development of professional skills

Table 2. Example #1

Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4
[none, but fulfill responsible conduct of research requirement]	SHS 701	SHS 702 SHS 790 Grant Writing Practicum (3 units)	SHS 790 Writing Group SHS 790 Designing, Managing Research Data	SHS 790 Effective Teaching GRD 791 Preparing Future Faculty, part 1 & 2	none	SHS 790 SHS Seminar	SHS 790 SHS Seminar or seminar in another unit

Table 3. Example #2

Fall 1	Spring 1	Fall 2	Spring 2	Fall 3	Spring 3	Fall 4	Spring 4
[none, but fulfill responsible conduct of research requirement]	SHS 701	SHS 702 SHS 790 Effective Teaching	SHS 790 Writing Group CHS 791 Grant Writing	GRD 791 Preparing Future Faculty, part 1 & 2	SHS 790 Designing, Managing Research Data SHS 790 SHS Seminar	SHS 790 SHS Seminar	Seminar of choice/in another unit, e.g. NTR 791 or BME 591

Research Experience Credits

Two series of research credits are required: (1) those completed *prior to* the dissertation prospectus meeting (*SHS 792*); and (2) those completed after a dissertation proposal has been approved (*SHS 799*). Twelve semester hours of research (*SHS 792*) are required prior to the dissertation prospectus meeting. Typically, students enroll for 3 credits each semester for the first two years of their program. During this time, the student is expected to conduct on-going research under the direction of their faculty mentor or with a faculty member who serves on the student’s Program Committee. This research program should lead to increasing research independence. Research conducted during the first three semesters of study is part of the **preliminary examination**.

Research conducted after successfully passing the dissertation prospectus is considered dissertation research (*SHS 799*). Typically students enroll in 3-6 units each semester. Once students begin registering for **dissertation credits** they must do so continuously each semester until the dissertation has been successfully defended. Students may complete more than 12 units of *SHS 792* and more than 12 units of *SHS 799*; however, only 12 units of each may be counted on the student’s program of study (iPOS).

Preliminary Examination

Students must pass their preliminary examination to continue in the Ph.D. program.

Preliminary Examination Prospectus

- The prospectus for the preliminary exam research project must be completed by the end of the second semester of enrollment.
- For the Auditory & Language neuroscience concentration, the preliminary exam research project must be within the field of auditory and/or language neuroscience, as determined by the student's committee.
- For the Translational Genetics of Communication Abilities (TGCA) concentration, the preliminary exam research project must be within the field of genetics as it relates to communication phenotypes, whether normal or disordered. The student's committee will advise on the appropriate scope of the topic.
- A copy of the completed title page, abstract, introduction, methods, and proposed analyses sections of the manuscript, along with a complete reference list, must be provided to all members of the student's Program Committee at least **one week** prior to the oral presentation. A late submission may result in a grade of 'fail' for that portion of the preliminary exam.
- The oral presentation is scheduled at the end of the second semester of study. Each student will give a formal presentation of their prospectus to their program committee after which they will answer questions about their proposed study, including questions about their written prospectus and oral presentation.
- Based on the quality of the prospectus, the written document, and the oral presentation, the Program Committee will issue a grade of "pass," or "fail." A form documenting the student's performance will be submitted to the Chair of the Ph.D. Committee and to the Program Director by the Program Committee Chair (see Appendices).
 - A grade of "**pass**" indicates the student successfully completed and presented the preliminary exam prospectus. This indicates that this portion of the Preliminary Examination requirement for continued enrollment in the Ph.D. Program has been fulfilled and the student is permitted to proceed with coursework and research advancing toward the second portion of the preliminary exam. The program committee may require the student to make changes to the oral presentation or written document before issuing a grade of "pass."
 - A grade of "**fail**" indicates that the student's performance on the prospectus portion of the Preliminary Examination was unsatisfactory. This grade is issued when the Program Committee determines that the scope and/or nature of the deficits evidenced in the prospectus portion of the preliminary examination will likely preclude successful completion of the Ph.D. Program. The student will be recommended for dismissal from the program. Dismissal and appeal procedures will be outlined in the dismissal notification.

Preliminary Examination Defense

- The defense for the preliminary exam research project must be completed by the end of the third semester of enrollment.
- A copy of the completed title page, abstract, introduction, methods, results, and discussion sections of the manuscript, along with a complete reference list, must be provided to all members of the student's Program Committee at least **one week** prior to the oral presentation. A

late submission may result in a grade of “fail.”

- The oral presentation is scheduled at the end of the third semester of enrollment. Each student gives a formal presentation of their project to an open audience of students, faculty and staff. After their presentation the student will answer questions from their Program Committee and from other audience members.
- Based on the quality of the defense, the written document, and the oral presentation, the Program Committee issues a grade of "pass" or "fail." A form documenting the student's performance will be submitted to the Chair of the Ph.D. Committee and to Program Director by the Program Committee Chair (see Appendices).
 - A grade of “**pass**” indicates the student successfully completed, presented, and defended the preliminary exam project. This indicates that this portion of the Preliminary Examination requirement for continued enrollment in the Ph.D. Program has been fulfilled and the student is permitted to proceed with coursework and research. The program committee may require the student to make changes to the oral presentation or written document before issuing a grade of “pass.”
 - A grade of “**fail**” indicates that the student's performance on the defense portion of the Preliminary Examination was unsatisfactory. This grade is issued when the Program Committee determines that the scope and/or nature of the deficits evidenced in the defense portion of the preliminary examination will likely preclude successful completion of the Ph.D. Program. The student will be recommended for dismissal from the program. The dismissal notification will include appeal procedures, which are also included on p. 22.

Teaching Requirement

Students must complete successful teaching activities, typically during the third year of their Ph.D. Program. These may take a number of forms including guest lecturing in courses or assuming responsibility for teaching or developing a section of a course or an entire course (unpaid). The extent and nature of the teaching activities will be determined by the student and the student's mentor and reported on the Annual Ph.D. Student Individual Development Plan and Progress Report.

Official Program of Study (iPOS)

Before taking their Comprehensive Examination the student must update their official Program of Study (iPOS) with the Graduate College. This iPOS lists all of the courses/research credits completed and planned to fulfill the Ph.D. requirements. Information about the iPOS may be found [here](#).

- No more than 6 transfer credit hours may be included in the iPOS.
- No credit hours that have been applied towards a previously awarded degree may be applied toward the Ph.D. degree on the iPOS except that students who have earned a master's degree may apply up to 28 credit hours from that master's degree toward the required 84 semester hours of graduate work beyond the bachelor's degree in the iPOS.
- At least 12 credit hours of SHS 799 Dissertation credits and no more than 12 credit hours must be included on the iPOS.

Comprehensive Examinations

Near the completion of course work and **prior to** commencing dissertation research the student must pass a comprehensive written examination covering their field of study, which will be orally defended. Because this comprehensive examination occurs prior to dissertation research it serves two important purposes. First, it provides an opportunity for the student to demonstrate an appropriate depth and breadth of knowledge in

their primary area(s) of interest. Demonstration of an appropriate level of expertise is prerequisite to the development of a Ph.D. dissertation. Second, the exam provides an opportunity to identify any remaining area(s) of weakness that may be remediated through additional coursework or educational activities. If the weaknesses reflect fundamental problems with a student's knowledge base or his/her aptitude for interpreting and synthesizing research the student may be dismissed from the Ph.D. Program.

The comprehensive examination is administered and evaluated by the Comprehensive Examination Committee that includes at least three members of the Speech and Hearing Science Graduate Faculty. Typically students will have taken one or more classes or independent studies with each of the Comprehensive Examination Committee members or will have been involved in research in their labs.

Students are encouraged to meet with each member of the Committee in the semester preceding the exam to determine the most appropriate preparation procedures. This usually involves identifying an area or topic that will be the focus of the examiner's questions; the expected format of the written exam; and the most efficient and effective strategies for preparing for the exam. The examiner may provide as much or as little information about the exam and preparation as he/she believes is appropriate. The chair of the Comprehensive Exam Committee (typically the student's research mentor) will communicate to the other committee members the procedures and schedule of the oral and written comprehensive exam components. If the comprehensive exams are completed during the summer term, students must be enrolled in at least 1 credit hour of graduate level coursework during the summer term. This could be research credit (SHS 792) or continuing registration credit (SHS 795).

Written Examination

The written examination should take place during the student's 2nd year unless other arrangements have been approved by the Comprehensive Examination Committee (see Table 1). The exam may take one of the following formats:

- Students write responses to questions posed by each committee member in three-hour blocks of time (each block dedicated to the questions of one committee member). Typically, students complete the written examination in two working days (writing mornings and afternoons on two consecutive days), but the written examination must be completed in no more than five working days; or
- Students complete a written paper for each member of the committee.

For the Auditory and Language Neuroscience concentration, at least two of the three questions posed by the committee members must be focused within the area of auditory and/or language neuroscience. Similarly, for the Translational Genetics of Communication Abilities (TGCA) concentration, at least two of the three questions must be focused on aspects of genetics aspects of communication abilities or disabilities.

The student will be notified of their grades on the written portion of the comprehensive exam by the committee chair within two weeks of completing the final papers or exam. One grade will be submitted to the Comprehensive Examination Committee chair from each committee member. Students may "pass" or "fail."

- A grade of "**pass**" indicates that the student addressed the questions at a level of quality commensurate with the examiners' expectations. Any member of the committee may require the student to make minor changes to the written document before issuing a grade of "pass." The required changes must be provided to the student in writing and copied to the chair of the Program Committee. The student may not advance to the oral defense until he/she has received a grade of

“pass” from each comprehensive exam committee member. Students who receive a grade of “pass” from each committee member will advance to the oral defense within two weeks of receiving their grades.

- A grade of “fail” is given when the majority of responses are inaccurate, insufficient, or unacceptable. A failing grade from **any** committee member is a failing grade for the entire written examination. Failing the comprehensive examination(s) is considered final unless the supervisory committee and the head of the academic unit recommend, and the Dean of the Graduate College approves, a re-examination. Only one reexamination is permitted. A petition with substantial justification for re-examination, endorsed by the members of the students’ supervisory committee and the head of the academic unit, must be approved by the Dean of the Graduate College before students can take the examination a second time. Re-examination may be administered no sooner than three months and no later than one year from the date of the original examination. Results of the written examination are recorded on the *Report of Doctoral Comprehensive Examinations Form* (see Appendices) and given to the graduate support coordinator who submits them via the iPOS to the Graduate College.

Oral Examination

The oral examination will be given within two weeks of final notification of a passing grade on the written examination. The Comprehensive Examination Committee will conduct a closed meeting with the student lasting approximately two hours. The purpose of this meeting is to allow members of the Comprehensive Examination Committee to assess the student’s level of understanding and expertise in any area they consider appropriate and relevant to the knowledge base of the student.

Typically the content of the written examination serves as a springboard for the oral defense wherein students are asked to extend, defend, and clarify their responses to written examination questions or papers. The discussion may also include questions in areas of expertise that were not covered in the written examination. The meeting is adjourned when the Comprehensive Examination Committee agrees that they have sufficient information upon which to render a final grade for the examination. The student is asked to leave the room while the Committee deliberates, and is invited back into the room to hear the Committee’s decision. Students may pass, fail, or be granted a retest.

- A grade of “**pass**” indicates that the student is advanced to doctoral candidacy and may embark on development of a dissertation proposal (prospectus).
- A grade of “**re-test**” is rendered when the Comprehensive Examination Committee believes the student has the capability to successfully complete the comprehensive examination at a later date. If a “re-test” is the grade rendered, the supervisory committee and the head of the academic unit (Program Director) recommend a re-examination. A re-examination will be permitted with approval of the Dean of the Graduate College. Only one reexamination is permitted. A petition with substantial justification for re-examination, endorsed by the members of the students’ supervisory committee and the head of the academic unit, must be approved by the Dean of the Graduate College before students can take the examination a second time. Re-examination may be administered no sooner than three months and no later than one year from the date of the original examination.
- A grade of “**fail**” indicates that the student did not demonstrate the appropriate level of knowledge and expertise required for dissertation work and that it is unlikely that additional time and study will result in success. In this situation, the student will be recommended for dismissal from the program.

The dismissal notification will include appeal procedures.

- Results of the oral examination are recorded on the *Report of Doctoral Comprehensive Examinations Form* (see Appendices) and given to the graduate support coordinator who will submit them via the iPOS to the Graduate College.

☑ Doctoral Dissertation

Dissertation Committee. Upon successful completion of the comprehensive examination the primary mentor, in consultation with the student, selects a Dissertation Committee. The Dissertation committee includes at least three members of the Speech and Hearing Graduate Faculty. This committee is usually the same as the Comprehensive Exam committee, although this is not a requirement. Any changes to the committee must be submitted to the Graduate College via the iPOS.

Dissertation Prospectus. Prior to conducting dissertation research, each student must submit a written dissertation prospectus that is defended orally and approved by the Dissertation Committee. The written prospectus may be in one of two formats based on approval of the Dissertation Committee:

1. The introduction and methods sections of a traditional dissertation or
2. The introduction of a traditional dissertation and the introduction and methods for a publishable manuscript.

Dissertation research may not proceed until all committee members approve the research at or following the prospectus meeting. In addition, if human subjects will be included in the research, IRB approval must be received before research begins. Dissertation Committee approval indicates that the committee finds the project to be of suitable scope and depth for dissertation work and that the design, as outlined in the prospectus, is sound and feasible. After successfully completing the prospectus meeting the student must have all committee members sign the *Results of the Doctoral Dissertation Proposal/Prospectus Form* (see Appendices) and submit it to the graduate support coordinator who will submit the results via the iPOS to the Graduate College.

If the prospectus defense is completed during the summer term, students must be enrolled in at least 1 credit hour of graduate level coursework during the summer term. This could be research credit (SHS 792) or continuing registration credit (SHS 795).

Dissertation Requirements. The dissertation will consist of a fully documented written product of mature and original scholarship. It must be a significant contribution to knowledge that reflects the student's creativity and competence in independent research. For the Auditory and Language Neuroscience concentration, the dissertation research must be on a topic within the area of auditory and/or language neuroscience. For the Translational Genetics of Communication Abilities (TGCA) concentration, the dissertation research must be on a topic that links genetics aspects with communication abilities/disabilities.

The dissertation may be in one of two formats based on approval of the Dissertation Committee:

1. A traditional dissertation or
2. The introduction of a traditional dissertation and one or more written manuscripts ready for submission to a peer-reviewed journal. Depending on the scope of dissertation research the Dissertation Committee may approve a single manuscript.

Students must provide members of the Dissertation Committee with copies of the written document at least **10 days** in advance of the oral defense. If the submission is late, any committee member may request a delay in the prospectus meeting. The dissertation must adhere to the specific format outlined by the Graduate College. It is the student's responsibility to insure that their document meets Graduate College formatting requirements. For more information about the dissertation format click [here](#). Students cannot officially schedule their oral defense until they obtain format approval from the Graduate College.

Final Examination. Students must successfully complete a public oral examination in defense of their dissertation, conducted by the Dissertation Committee. Students should be aware that the Graduate College imposes strict deadlines. Early in the semester in which they intend to defend their dissertation students should determine (1) the deadline for applying for graduation, (2) the last day to hold an oral defense, and (3) the last day to obtain final format approval (and to obtain the dean's signature). The important deadlines for graduation may be found [here](#).

While it is desirable that all members of a student's dissertation committee be physically present with the student at the final oral defense, there are situations (e.g. faculty travel, faculty emergencies and/or faculty leave) that may necessitate holding a defense with one or more committee member(s) absent. **If a committee member will be absent from the defense, the student or committee chair/co-chair must notify the Graduate College at grad-gps@asu.edu before or at the time of scheduling the defense.** If the student is notified of an absence after scheduling the defense, the student must contact the Graduate College prior to the defense date.

The Graduate College has established the following policies and procedures for such cases.

1. A minimum of 50% of the student's official committee must be physically present with the student at the defense. If at least 50% of the committee cannot be physically present the defense must be rescheduled.
2. The chair or (one co-chair) must be physically present at the defense. If this is not possible, the defense must be rescheduled. The student cannot submit a committee change after the defense is scheduled to create co-chairs in the case of an absent chair.
3. A committee co-chair or member who cannot be physically present at the defense may participate in the defense in one of three ways. These options are listed in the order of preference:
 - a. The absent committee member videoconferences into the defense location.
 - b. The absent committee member teleconferences into the defense location.
 - c. The absent committee member provides a substitute to be physically present (approved by the committee chair, the head of the academic unit & graduate education) for the defense only. The substitute must be someone who is approved to serve on graduate supervisory committees for that program. The absent committee member should provide the substitute questions, in writing, to be asked at the defense. The substitute, although respecting the opinions expressed by the regular committee, must be free to use his/her judgment in voting on whether the student passes or fails the defense.

Immediately upon completion of the oral presentation and dissertation defense, the Dissertation Committee meets privately to render a grade of either *pass* or *fail*.

- A **passing grade** is rendered upon successful completion of the written document, oral presentation, and dissertation defense. The student must revise the document as specified by their Dissertation Committee. The document must then be submitted to the Graduate College for final format approval. It is the student's responsibility to follow Graduate College procedures for dissertation submission and to meet required deadlines found [here](#).
- A **failing grade** indicates that the student has failed the final requirement for attaining a Ph.D. in Speech and Hearing Science and the student is dismissed from the Ph.D. Program without receiving the Ph.D. degree.
- Failure to follow required procedures or to meet required deadlines will delay graduation.

Absent Committee Member Signature Instructions

1. The substitute should sign the absent committee member's name, and add his/her initials directly after the signature.
2. If the videoconference or teleconference option is selected, the absent member needs to e-mail the committee chair or co-chair to state that member voted to pass at what level or fail the student and authorize that the chair sign their name on the pass/fail form. The committee chair or co-chair should sign the name of the absent individual on the pass/fail form and then add his/her initials directly after the signature. The e-mail must be submitted with the final pass/fail form.

EXPECTED TIMELINES FOR PH.D.

YEAR 1

A. Prior to first semester

1. A mentor will be assigned during the admission process; no student will be admitted without a faculty member who is willing to act as the mentor. The mentor will function as the chair of the Program Committee.

B. During year 1

1. Prepare Annual Ph.D. Student Individual Development Plan with mentor by September 1 and the Progress Report section by March 1; select two additional faculty members to serve on Program Committee (who will also evaluate the first-year project prospectus).
2. Enroll in 9-12 credit hours per semester, including 3 research credits (SHS 792) each semester;
3. By the end of the fall semester, fulfill the Responsible Conduct of Research and Academic Integrity requirement
4. In the spring semester, enroll in SHS 701 Scientific Process I: Research Review & Development
5. Complete research methods and statistics course requirements.
6. Work on preliminary exam research project prospectus.

C. Near end of year 1

1. Written (journal-style) manuscript for introduction and methods of preliminary exam project submitted to committee members.
2. Oral presentation and defense of preliminary exam prospectus.
3. After successful completion of preliminary exam prospectus mentor and student, in conjunction with the Program Committee, outlines course of study for (minimally) the second year.

YEAR 2

- A. During year 2
1. Update Annual Ph.D. Student Individual Development Plan with mentor by September 1 and the Progress Report section by March 1.
 2. Continue course work, including SHS 702 in the fall and SHS 790 Writing Group in the spring.
 3. Continue non-dissertation research activities (6 credits of 792).
 4. Defend preliminary exam project end of fall semester.
- B. Near end of year 2
1. Assemble Comprehensive Examination Committee.
 2. Begin preparations for comprehensive examination.
 3. Take comprehensive exam end of spring or summer semester.
 4. File Program of Study (iPOS) with the Graduate College.

YEAR 3

- A. During Year 3
1. Prepare Annual Ph.D. Student Individual Development Plan with mentor by September 1 and the Progress Report section by March 1.
 2. Continue with any additional course work and enroll in professional seminars as needed/appropriate.
 3. Arrange for teaching experience if not already completed.
 4. After passing comprehensive exam assemble Dissertation Committee.
 5. Begin preparation of dissertation proposal including pilot work.
 6. Submit dissertation proposal (prospectus) to Dissertation Committee and hold prospectus meeting.
 7. After approval of the proposal *by all members of the Dissertation Committee* begin dissertation research.

YEAR 4

- A. During Year 4
1. Prepare Annual Ph.D. Student Individual Development Plan with mentor by September 1 and the Progress Report section by March 1
 2. Continue with any additional course work and enroll in professional seminars as needed/appropriate.
 3. Complete dissertation research.
 4. Write and properly format the dissertation.
 5. Apply for graduation.
 6. Submit dissertation document to the Graduate College for Format Evaluation and schedule Oral defense (note: Oral defense cannot be officially scheduled until Format Approval is obtained).
 7. Submit dissertation document to committee at least 10 days in advance of the defense.
 8. Hold oral defense; pass oral defense.
 9. Make any changes to the dissertation document required by the committee.
 10. Submit final document to the Graduate College; get all required signatures.
 11. Submit at least two copies of dissertation document to the bookstore for binding.
 12. Graduate!

POST-AU.D. PH.D.

If you are interested in completing both an Au.D. and Ph.D. degree please contact the AuD Program Director to discuss the requirements and schedule.

FINANCIAL ASSISTANCE POLICIES AND PROCEDURES

General information about financial assistance at ASU can be found [here](#). Depending on available funding, Ph.D. students can be employed as graduate assistants (GA). All GAs (teaching assistants and research assistants) employed at 25 percent time (10 hours/week) or more are considered to be residents for tuition purposes. Moreover, those employed between 25-49 percent time receive a 50% reduction in resident tuition. Those employed at 50 percent time receive a full waiver of resident tuition and health insurance benefits. The specific duties of GAs will vary depending on faculty and academic program needs each semester. If you have some special skills, you should inform the Program Director accordingly. Faculty ultimately request GAs to assist them in teaching and research. Examples of duties performed by teaching and research assistants, are listed below, but may include additional duties as needed. International students must demonstrate English proficiency before they can begin a TA appointment. Refer to the [Graduate College TA/RA Policies and Procedures Handbook](#) for more information.

Teaching Assistants – College Funding:

1. Preparation of materials for classroom presentations.
2. Giving, monitoring, and grading examinations.
3. Classroom demonstrations and presentations.
4. Teaching laboratory sections.
5. Library research.
6. Holding office hours for students.
7. Review sessions for course material and exams.

Research Assistants – College or Faculty Grant Funding:

1. Setting up and maintaining equipment and instruments used in experiments.
2. Running subjects and collecting data.
3. Statistical treatment of data.
4. Preparation of materials for presentations, manuscripts, and grant proposals.
5. Library research.
6. Transcription and data coding.

Student Hourly Workers

In other exceptional cases, student hourly worker positions may be available. These positions may function as teaching assistants, research assistants or clinical assistants. However, they are not subject to the same tuition reduction/waiver and health insurance benefits as Graduate Assistants.

CONDUCT AND CONFLICT RESOLUTION

In the event that grievances arise, ASU has clearly laid out the definitions and procedures for student conduct violations, disciplinary action, and conflict resolution. These procedures are described in documents linked

[here](#). Here, you can find documents regarding the Arizona Board of Regents Student Code of Conduct, Student Disciplinary/Grievance Procedures, and Role of the Advisor in the Investigative Process.

COLLEGE AND UNIVERSITY RESOURCES

Student Associations

Student Academy of Audiology, Advisors Erica Williams and Mollie Harding
National Student Speech-Language-Hearing Association, Advisor Myra Schatzki
[Graduate and Professional Student Association](#)

Student Support Services

[Writing Centers](#) : Using this tutoring service is highly recommended early in your graduate career.

[Counseling Services](#)

[Student Health Services](#)

[ASU Wellness & Sundevil Fitness Center](#)

[Campus Safety](#)

[Student Accessibility and Inclusive Learning Services \(SAILS\)](#)

[Pat Tillman Veteran's Center](#)

[International Students and Scholars Center](#)

[Campus Amenities](#)

[10 Best Practices in Graduate Student Wellbeing](#)

[Graduate Wellness Resources](#)

[College of Health Solutions Graduate Student Site](#)

Business and Financial Services

[Parking & Transit](#)

[Sun Card](#) You must purchase an ID. Not only is this the University ID, but also required to access some labs and clinic rooms.

[Student Business Services](#)

University Level Contact information

[Office of University Provost](#)

[Graduate College,](#)

[University Technology Office](#)

In-State Residency Requirements

Visit the [ASU Residency](#) website for additional information on in-state residency categories and residency petition requirements. According to Arizona Statue15-1802. In-state student status. "Except as otherwise provided..., no person having a domicile elsewhere than in this state is eligible for classification as an in-state student for tuition purposes"

INCOMPLETE GRADES

The College of Health Solutions will consider an incomplete grade request when the following factors are present:

- The student has been completing acceptable work (grade of C or better) and has completed 80% of the course.
- The student is unable to complete the course due to illness or conditions beyond the student's control.
- The student can complete the unfinished work with the same instructor.

Students have up to one calendar year to finish incomplete work. If a student does not complete the missing coursework by the date that is agreed upon on the [incomplete request form](#), the instructor may change the grade to what was earned based on the work completed in the class. If the coursework is not completed after a calendar year, the incomplete becomes permanent. Repeating a class in which an incomplete is awarded will not replace the "I" on the student's transcript. Students must complete the incomplete request form and submit it to their instructor for review and processing.

SATISFACTORY ACADEMIC PROGRESS

Per Graduate College guidelines, graduate students must maintain a minimum 3.00 grade point average (GPA) to maintain satisfactory academic progress and to graduate. Students whose cumulative GPA falls below 3.00 are placed on academic probation, receive an advising hold on their account, and are required to complete an academic performance improvement plan. If students are unable to raise the GPA to a 3.00 within nine credit hours or one year (whichever comes first), the program standards committee may recommend the student for dismissal from the program.

APPEALING DISMISSAL

1. Students may appeal a decision for dismissal from the program by submitting a letter of appeal to the Program Director.
 - a. The letter must be received within 10 business days of the date of the letter of dismissal. The letter should state the reasons justifying a reversal of the original decision and provide substantive evidence in support of the request.
 - b. Letters received after the 10 business-day interval will not be reviewed and the dismissal will be final.
 - c. The Speech and Hearing Science PhD Program Standards Committee will review all letters of appeal that are received within the 10 business-day time frame. The committee will submit their decision to the Program Director within 10 business days of receipt of the student's letter.
2. The Program Director will notify the Student Success Hub of the decision. The Student Success Hub will inform the student of the decision.
3. If the appeal is denied, the student may appeal to the CHS Academic Standards and

Grievances Committee within 10 business days of receiving the denial of the appeal. The CHS Academic Standards and Grievances Committee will review the dismissal and appeal materials and make a recommendation to the Dean of the College of Health Solutions. The Dean will have 20 calendar days to make a final decision.

4. If at any stage, a timely appeal is not submitted by the student, the Program Director will recommend dismissal to the Graduate College via the Student Success Hub. The Graduate College will then inform the student of the dismissal by letter.

GRADUATION CEREMONIES

Students completing a doctoral program may only participate in graduation ceremonies if all degree requirements are met prior to the ceremony. Students who need an extra semester to complete coursework must defer their graduation to the next term and participate in the next available ceremony.

APPENDICES

A. Mentors for the Auditory and Language Neuroscience Concentration

Name	Title	Area(s) of Specialization
Tamiko Azuma	Associate Professor	Neuropsychology of Language, Learning & Memory, Traumatic Brain Injury
Visar Berisha	Associate Professor	Biological Signal Processing
Blair Braden	Assistant Professor	MRI, autism
Ayoub Daliri	Assistant Professor	Cortical electrophysiology, fluency
Michael Dorman	Research Professor	Neural prosthetics & psychoacoustics
Shelley Gray	Professor	Language, Learning & Memory, Developmental Language & Reading Disorders
Julie Liss	Associate Dean and Professor	Motor speech processes and disorders
Xin Luo	Assistant Professor	Cochlear implants
Beate Peter	Associate Professor	Genetics, bioinformatics & neural bases of developmental speech and language disorders; cortical electrophysiology
Laida Restrepo	Professor	Bilingual language and literacy
Corianne Rogalsky	Associate Professor	Neuroimaging & Neurogenic Language Disorders
Nancy Scherer	Professor	Genetic Speech & Craniofacial Disorders, Genetics, Early Intervention
William Yost	Research Professor	Auditory perception & psychophysics
Yi Zhou	Associate Professor	Auditory Neurophysiology & Psychoacoustics

B. Example Courses That Fulfill Concentration Units for the Auditory and Neuroscience Concentration

APM 531 Mathematical Neuroscience I (3)
 APM 532 Mathematical Neuroscience II (3)
 BME 521 Neuromuscular Control Systems (3)
 BME 524 Fundamentals of Applied Neural Control (3)
 BME 568 Medical Imaging (3)
 NEU 556 Human Systems Neuroscience (3)
 PSY 535 Cognitive Processes (3)
 PSY 528 Sensation and Perception (3)
 SHS 511 Auditory Perception by the Hearing Impaired (3)
 SHS 513 Neurophysiology of the Auditory System (3)
 SHS 543 Functional Neuroimaging of Language and Other Related Processes
 PSY 598 EEG Research Methods I

C. Mentors for the Translational Genetics of Communication Abilities Concentration

<i>Name</i>	<i>Title</i>	<i>Area(s) of Specialization</i>
<i>Speech and Hearing Science</i>		
Tamiko Azuma	Associate Professor	Neuropsychology of Language, Learning & Memory, Traumatic Brain Injury
Visar Berisha	Associate Professor	Biological Signal Processing
Blair Braden	Assistant Professor	MRI, autism
Ayoub Daliri	Assistant Professor	Cortical electrophysiology, fluency
Shelley Gray	Professor	Language, Learning & Memory, Developmental Language & Reading Disorders
Julie Liss	Associate Dean and Professor	Motor speech processes and disorders
Xin Luo	Assistant Professor	Cochlear implants
Beate Peter	Associate Professor	Genetics, bioinformatics & neural bases of developmental speech and language disorders; cortical electrophysiology
Andrea Pittman	Associate Professor	Hearing impairment in children
Laida Restrepo	Professor	Bilingual language and literacy
Corianne Rogalsky	Associate Professor	Neuroimaging & Neurogenic Language Disorders
Nancy Scherer	Professor	Genetic Speech & Craniofacial Disorders, Genetics, Early Intervention
Jeanne Wilcox	Professor	Early language and literacy interventions
Yi Zhou	Associate Professor	Auditory Neurophysiology & Psychoacoustics
<i>Other Departments</i>		
Kathryn Lemery-Chalfant	Professor, Psychology	Genetics and epigenetics of behavioral traits
Valentin Dinu	Associate Professor, Biomedical Informatics	Bioinformatic analysis of genomic data
Li Liu	Assistant Professor, Biomedical Informatics	Evolutionary bioinformatic analysis of genomic data
Jason Newbern	Associate Professor, School of Life Sciences	Genetics, developmental neuroscience, neurons, glia

D. Example Courses That Fulfill Concentration Units for the Genetics of Communication Abilities Concentration

- BIO 543 Molecular Genetics & Genomics (3)
- CDE 533 Research Issues in Child Development (3)
- CDE 531 Theoretical Issues in Child Development (3)
- HCI 554 Outcomes Evaluation (3)
- MCB 555 Advanced Molecular and Cellular Sciences (3)
- MCB 556 Advanced Molecular and Cellular Biology II
- BMI 502 Foundations of Biomedical Informatics Methods I (3)

BMI 502 Foundations of Biomedical Informatics Methods II (3)
BMI 516 Advanced Biomedical Data Analysis (3)
BMI 520 Modeling Gene Regulatory Networks (3)
BMI 540 Problem Solving in Biomedical Informatics (3)
BMI 550 Translational Bioinformatics (3)
BMI 608 Project Management for Interdisciplinary Teams (3)
BMI 611 Applied Data Analysis (3)
BMD 501 Introduction to Biomedical Informatics
BMD 510 Current Perspectives in Biomedical Diagnostics (3)
BMD 598 Topic: Molecular Diagnostics (3)
HCD 501 Health Behavior and Statistical Tools in Health Environments (3)
HCD 510 Interdisciplinary Approaches to Promotion of Healthy Lifestyles (3)
MCB 555 Proteomics, Genomics and Disease
PSY 555 Experimental and Quasi-Experimental Designs
PSY 591 Seminar: Genetic Psychology
PSY 598 Child Care and Early Education
SHS 598 Topic: Molecules, Markers, Management: Introduction to Genetics

FORMS

Speech and Hearing Science Ph.D.
Preliminary Examination Prospectus Record Form

To be completed by the Committee Chair and submitted to Chair of the Ph.D. Committee and the Program Director.

Student's Name:

Title of Preliminary Exam Project:

Date of Prospectus:

Members of the committee:

_____ Pass The student successfully completed and presented the preliminary exam prospectus. The Preliminary Examination prospectus requirement for continued enrollment in the Ph.D. Program has been fulfilled.

_____ Fail The student's performance on the preliminary exam prospectus was unsatisfactory. The committee has determined that the scope and/or nature of the deficits will likely preclude successful completion of the Ph.D. Program, and therefore renders a grade of "fail" on the Preliminary Examination prospectus. A letter from the committee chair summarizing the committee's evaluation must be signed by the student and attached to this form. The committee recommends dismissal from the Ph.D. Program.

Signature of Committee Chair

Date

Signature of Program Director

Date

Speech and Hearing Science Ph.D.
Preliminary Examination Defense Record Form

To be completed by the Committee Chair and submitted to Chair of the Ph.D. Committee and the Program Director.

Student's Name:

Title of Preliminary Exam Project:

Date of Defense:

Members of the committee:

_____ Pass The student successfully completed and presented the preliminary exam defense. The Preliminary Examination defense requirement for continued enrollment in the Ph.D. Program has been fulfilled.

_____ Fail The student's performance on the preliminary exam defense was unsatisfactory. The committee has determined that the scope and/or nature of the deficits will likely preclude successful completion of the Ph.D. Program, and therefore renders a grade of "fail" on the Preliminary Examination prospectus. A letter from the committee chair summarizing the committee's evaluation must be signed by the student and attached to this form. The committee recommends dismissal from the Ph.D. Program.

Signature of Committee Chair

Date

Signature of Program Director

Date

Report of Doctoral Comprehensive Examinations
Speech and Hearing Science

Please Note: This form is internal to Speech and Hearing Science in the College of Health Solutions. It is not submitted to the Graduate College.

Please Note: The Plan of Study (iPOS) must be approved by the Graduate College before a student is eligible to take the doctoral comprehensive examinations. Any required foreign language examinations must be passed and on file with the Graduate College before submitting the comprehensive examination results.

Form Instructions:

1. The student completes Part I and gives the form to their committee chair.
2. After the examination, the examining committee completes Part II and III by signing the form and indicating pass, re-test, or fail.
3. The committee chair gives the form to the graduate support coordinator who has the Program Director complete and sign Part IV.
4. The graduate support coordinator enters the results online via the iPOS per Graduate College requirements and sends the student a copy of the form.

Part I: Student Information

NAME OF STUDENT (Last name, first name, middle name)	ASU ID NO.
DOCTOR OF	MAJOR

Part II: Examination Dates (MM/DD/YY)

DATE ORAL COMPREHENSIVE EXAMINATION TAKEN	DATE WRITTEN COMPREHENSIVE EXAMINATION TAKEN
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Part III: Examination Result

PLEASE TYPE NAMES OF COMMITTEE	SIGNATURES	PASSED WRITTEN EXAM	FAILED WRITTEN EXAM	PASSED ORAL EXAM	RE-TEST ORAL EXAM	FAILED ORAL EXAM
CHAIR OR CO-CHAIR		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MEMBER		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MEMBER		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MEMBER		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MEMBER		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part IV: Final Result

PASSED <input type="checkbox"/>	FAILED <input type="checkbox"/>	SIGNATURE HEAD OF ACADEMIC UNIT (PROGRAM DIRECTOR)	DATE
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All comprehensive examination results, including failure in any one of the required examinations, must be reported to the Graduate College. Failure of the comprehensive examinations is final unless the student petitions for a re-attempt, the supervisory committee, and the head of the academic unit (Program Director) recommend, and the Graduate College dean approves the re-attempt.

**Results of the Doctoral Dissertation Proposal/Prospectus/Final
Speech and Hearing Science**

Please Note: This form is internal to Speech and Hearing Science in the College of Health Solutions. It is not submitted to the Graduate College.

Please Note: The student must successfully complete the doctoral comprehensive examinations and the results must be on file with the Graduate College before the submission of the dissertation proposal/prospectus results. The student will be advanced to candidacy after successful completion of the dissertation proposal/prospectus.

Form Instructions:

1. The student completes Part I and gives the form to their committee chair.
2. The dissertation committee chair should write in the date (MM/DD/YY) of the proposal/prospectus defense; then the dissertation committee completes Part III by signing the form and indicating their votes of Passed or Failed.
3. The committee chair submits the form to the graduate support coordinator.
4. The graduate support coordinator provides the form to the Program Director for signature.
5. The head of the academic unit (Program Director) completes Part IV by signing the form, confirming the majority vote of the committee, and signifying that the proper procedures have been followed for the proposal/prospectus defense.
6. The graduate support coordinator enters the results online via the iPOS per Graduate College requirements.
7. The graduate support coordinator sends the student a copy of the completed form.

Part I: Student Information

NAME OF STUDENT (Last name, first name, middle name)	ASU ID NO.
DOCTOR OF	MAJOR

Part II: Prospectus Date (MM/DD/YY)

DATE DISSERTATION PROSPECTUS COMPLETED
--

Part III: Proposal/Prospectus Information

PLEASE TYPE NAMES OF COMMITTEE	SIGNATURES	PASSED	FAILED
CHAIR OR CO-CHAIR		<input type="checkbox"/>	<input type="checkbox"/>
MEMBER		<input type="checkbox"/>	<input type="checkbox"/>
MEMBER		<input type="checkbox"/>	<input type="checkbox"/>
MEMBER		<input type="checkbox"/>	<input type="checkbox"/>
MEMBER		<input type="checkbox"/>	<input type="checkbox"/>

Part IV: Final Result

PASSED <input type="checkbox"/>	FAILED <input type="checkbox"/>	SIGNATURE HEAD OF ACADEMIC UNIT (PROGRAM DIRECTOR)	DATE
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All results, including failure of the proposal/prospectus, must be reported to the Graduate College. Failure of the proposal/prospectus is final unless the supervisory committee and the head of the academic unit recommend, and the Graduate College dean approve a second proposal/prospectus defense.