

Doctor of Philosophy

in

SPEECH, LANGUAGE, and HEARING SCIENCES

2017-2018

Student Handbook

The Ph.D "Cactus Book"



The Department of Speech, Language, and Hearing Sciences
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Doctor of Philosophy in Speech, Language, and Hearing Sciences

The Doctor of Philosophy (Ph.D.) program prepares students for academic and research careers through coursework and research training. Our goal is to support the development of outstanding independent researchers and educators. Graduates from the program have a broad base of knowledge about human communication sciences and disorders and significant in-depth preparation in their special areas of concentration within the discipline. The University of Arizona provides an excellent context for multidisciplinary experiences and skill development to enhance research career preparation.

The Department encourages diversity among applicants to the program and individualized plans of study are developed in consultation with each student's major advisor and program committee. Doctoral students experience a rigorous mentoring process involving the major professor selected by the student. They also engage in a range of research experiences with members of the faculty within the Department, and from other departments on campus. It is expected that students will engage in scholarly, publishable research endeavors throughout their course of study at the University of Arizona.

The following information is intended to supplement that which is provided in the Graduate Catalog which can be found online at: http://grad.arizona.edu/Catalog/. In general, the Graduate College requirements focus on admission formalities; certain examinations and the dissertation; the makeup of committees that conduct the examination; and the sequencing of events leading up to completion of the degree requirements. The department requirements address admission to the program, coursework, research internships, teaching preceptorships, the format of written portions of examination, and the development of the dissertation prospectus.

The information that follows is subject to change. The Departmental requirements and practices summarized herein supplement those described in the University's General and Graduate Catalogs. In case of conflict, the appropriate Catalog prevails. Students are held to Departmental requirements in effect at the time they are admitted to the program unless they formally choose to meet new requirements implemented in a subsequent year.

Appendix A contains the following SLHS documents:

- 1. Quick Guide to Doctoral Program Requirements
- 2. Form "Plan for Conducting the Qualifying Examination"
- 3. Form "Results of the Qualifying Examination"
- 4. Form "Plan for Conducting the Comprehensive Examination"

ACADEMIC PROGRAM

The Doctor of Philosophy is a research degree. In addition to academic coursework, an important component of the program of study is ongoing involvement in laboratory-based research during each semester of the doctoral program. This may be in the form of a laboratory rotation, project assignment by a mentor, independent study, or dissertation research.

Individuals who did not complete a master's thesis prior to enrolling in the doctoral program are required to **complete a thesis-equivalent research project and present this research in a public forum** (e.g. department colloquium, seminar, conference, etc.). The topic and extent of this project, as well as the presentation venue, will be determined by mentor and student. This project must be completed prior to taking the comprehensive exam.

Coursework in the Major

Students are required to complete a minimum of **36 graduate semester hours** pertaining to human communication and its disorders (not all of which must be in residence or offered in the Department of Speech, Language and Hearing Sciences) exclusive of dissertation research and audits. Graduate credit that was earned within the last ten years may be applied toward the Ph.D. degree with approval of the student's program committee. A 9-unit minor is required, as well as 18 units of dissertation (SLHS 920). At least 23 units must be in courses in which regular grades (A,B,C) have been earned.

Three courses, required of all doctoral students, account for 15 of the 36 credit hours:

SLHS 649 Survival Skills and Ethics (one 3-unit registration)

SLHS 696a Doctoral Seminars in Speech, Language, and Hearing Sciences (6 credits total =

registrations in Doctoral Readings to get to 4 credits and one 2-unit registration in the grant writing seminar). SLHS 696a will be offered by various faculty on a diverse range

of topics.

SLHS 900 Research (two registrations for 3 units each)

Research Rotations (SLHS 900)

Students are **required** to complete a minimum of <u>two research rotations</u> for course credit prior to beginning dissertation research. These rotations are to be selected and designed to expose the student to various facets of the research enterprise and to lead the student to increasing independence. One of the rotations must be completed with a faculty member who does **not** serve as the student's major advisor. Each rotation will result in the development of a suitable report prepared by the student. In most cases the report will be developed into a manuscript destined for submission to an appropriate refereed publication.

Additional Major Requirement

Doctoral students must complete or present coursework to the Qualifying Committee that is equivalent to:

• SLHS 500 - Introduction to Research Methods in Speech and Hearing Sciences. Doctoral students should plan on enrolling in SLHS 500 in their first year of study if they have not had equivalent coursework prior to enrolling at the University of Arizona.

Each student, in consultation with his or her program committee, will plan additional coursework in both the area of specialization **and** in any areas of speech, language, or hearing where the student may be deficient.

In the area of specialization, any chosen course should meet the following conceptual criteria:

- 1. Provides core information related to the student's proposed line of research.
- 2. Provides tools for the conduct of research (e.g., statistics, programming, measurement, technologies employed in research)
- 3. Contributes to the development of a conceptual theme underlying the student's training program.

In areas of deficiency in speech, language, or hearing, students may register for graduate classes or independent studies that are designed to cover core information. Independent studies require the student and instructor to develop a plan of study that may include attending lectures in an undergraduate class, readings, and a project that allows the student to demonstrate knowledge in the core area. The details of the project will be determined by the course instructor and the student. However, independent studies cannot be used solely as a replacement for existing classes.

An outline of the Doctoral Degree Study Program should be completed by the end of the first year, and a paper copy submitted to the Department.

Minor

The Graduate College **requires** that a student complete a formal minor course of study. The minor is to reflect a student's research interest with specific coursework determined by the minor department. The minor must consist of at least 9 units of graduate-level coursework and chosen from the list of Graduate Programs found at this link: http://grad.arizona.edu/programs/

Research Competencies to be obtained through Laboratory Experiences and Coursework

Procedural competencies:

- 1. Knowledge of research instrumentation and hardware.
- 2. Knowledge of general use software programs (e.g., Excel, Adobe, Powerpoint), and lab specific software (e.g., Matlab, SPM, EPrime, Direct RT).
- 3. The ability to search the literature, including searching electronic databases and being able to pursue a theme through the literature.
- 4. Knowledge and application of statistics and other mathematical models for understanding data.
- 5. How to keep lab records.
- 6. In some cases, knowledge of specific techniques (e.g., ERP, dissection) that are necessary or beneficial for a specific area of research.

Writing competencies:

- 1. The ability to abstract and summarize information.
- 2. The ability to write in the publication style of the field.
- 3. The ability to present information in poster format.
- 4. The ability to write and manage human subjects-related documents.

Scientific competencies:

- The ability to discuss lab projects in terms of the scientific method and aspects of validity.
- 2. The ability to design a project that measures/manipulates a target effect and controls extraneous effects.
- 3. The ability to manage the day-to-day aspects of completing a research project from conceptualization through data collection and manuscript production.

Teaching Preparation

It is **strongly** recommended that students pursuing an academic career complete the following in preparation for teaching:

Year 1: The University of Arizona offers a 10-credit Certificate in college teaching.

Information on this certification can be found at http://cct.oia.arizona.edu.

Years 2-4 Preceptor in a course or a selected unit or units within a course

Prepare a portfolio to include: syllabus, learning objectives, test items, and

lecture notes

Be observed by supervising professor

Policy on Major Advisor

Every student is required to have a **doctoral mentor/advisor** who is a member of the SLHS faculty. Although the major advisor is selected prior to admission into the program, circumstances may develop that necessitate a change of major advisor. The first step in this process is to discuss a possible change with your current major advisor and a potential advisor. If changing advisors is amicable for all involved, the only interaction necessary with the Doctoral Committee will be a signature to officially make the change. In addition, the Department Head should be made aware of the change. However, if the change of advisors becomes problematic, the Doctoral Committee and/or the Department Head may serve as an arbitrator/liaison to help solve the problem. Under only *unusual and exceptional* circumstances a student may be allowed to have a non-SLHS faculty member serve as their doctoral mentor/advisor for the dissertation phase of the program. Such a situation must be formally proposed to the Doctoral Committee, and approved by that committee as well as the Department Head.

Preparation for Research with Human Subjects and Clinical Populations

Human Subjects Protection Training and Research Approval Process

All students are required to complete the Human Subjects Protection Training Program. This can be done online at http://orcr.arizona.edu/hspp/training

All research involving human subjects must be approved by the University of Arizona Human Subjects Protection Program prior to implementation. Students should consult their mentors, research supervisors, and the chair of the department Human Subjects Review committee for clarification on when and how Institutional Review Board (IRB) approval should be obtained. No approval can be granted retroactively, so it is essential that before a student gathers any data, he or she have proper approval.

The Graduate College Degree Certification prefers that an IRB approval letter for dissertation research be included with the Advancement to Candidacy form (there is a checkbox to indicate if Human Subjects will be used). However, because this form should be submitted to the Graduate College soon after completing the comprehensive exam, many students will not yet have obtained IRB approval for their research. In such a case, submit the Advancement to Candidacy form and include a note stating that it is understood that IRB approval is required for final acceptance of the dissertation and that a letter of approval will be forthcoming.

To obtain the forms and information about IRB approval, refer to the Human Subjects Office for guidance: http://orcr.arizona.edu/hspp/forms

HIPAA Client/Patient Confidentiality Clinical Policy

HIPAA stands for the Health Insurance Portability and Accountability Act, a federal law regarding confidentiality of client/patient information. All students must receive HIPAA training to participate in any clinical endeavor, and are expected to adhere to HIPAA and Department policies at all times. HIPAA training involves two steps:

- Students must complete the UA HIPAA training through UAccess Learning. This training can
 be completed on campus or from an off campus location using VPN. On UAccess Learning,
 click on Find Learning and locate the module HIPAA (Health Insurance Portability and
 Accountability Act (CERTHIPAA) and click register. When registered click on HIPAA 101 and
 complete the self-paced modules. Detailed instructions are available on the UAccess
 Learning site. When you have completed the module, print the certificate of completion.
- 2. Students must review the department HIPAA policies (available on slhsfac.arizona.edu) and sign the department confidentiality form. Annual updates regarding HIPAA and other security issues will be provided at the start of each academic year

Students must have a certificate of completion from UAccess Learning and a signed confidentiality form on file in the department office. Direct questions regarding HIPAA to Janet Hawley, SLHS HIPAA Compliance Officer.

Annual Report

Students are required to submit their most current curriculum vitae by April 1 of each year, and to maintain satisfactory progress toward the degree. This should be submitted to the Chair of the Ph.D. Committee. In addition, your advisor will evaluate your progress annually and provide feedback each year. If changes are recommended, the consequences of not making the changes will be

identified. Your advisor will discuss the recommendations with you and you will be asked to summarize your understanding of them. In this case, the advisor's evaluation and recommendations, together with your CV, will be placed in your file, and also discussed by the faculty as a whole at a scheduled meeting. Please consult with your advisor or other faculty about CV format.

EXAMINATIONS AND COMMITTEES

Policy on Committees

Doctoral students will have four committees during their training: the Qualifying Exam and Program Development Committee, the Comprehensive Exam Committee, and the Prospectus/Dissertation Committee. The student's major advisor typically chairs each committee. The student is responsible for recruiting faculty to serve on each committee. Note: there is not an automatic carryover of members from one committee to another and it may be advantageous to have different committee members throughout the program. The responsibility of a faculty member serving on a particular committee ends when that committee has finished its designated task. If the need arises for a student to change committee members for a specific committee, the student is responsible for discussing the change with the major advisor and the affected committee members. Again, if there are conflicts associated with the change, the Doctoral Committee can arbitrate; otherwise they will not be involved.

A student should always consult their mentor concerning distribution of documentation, prospectus, presentation materials, academic plans, manuscripts, etc.

Qualifying Examination and Program Development Committee

All students must take a **Qualifying Exam** and conduct a **Program Planning** meeting. These should both be completed in the first semester of the doctoral program but is flexible depending on the specific circumstances of the student's program. The qualifying examination committee consists of a minimum of three members of the faculty of the Department of Speech, Language, and Hearing Sciences. The purpose of the examination is to assess a student's research potential, identify strengths and weaknesses as they relate to the student's goals and department requirements for a Ph.D. in Speech, Language and Hearing Sciences. Each student, in collaboration with their committee chair, will complete the *Plan for Conducting the Qualifying Examination* form that can be found at the end of this document or on the department website. This form should be submitted to the Chair of the Doctoral Committee prior to the exam.

The examination consists of three parts:

- Part 1: Students will be given 2-3 journal articles, book chapters, etc. to read that are selected by their major advisor. The advisor will also give the student 3-5 questions based on the reading material to answer in essay form. Some questions will relate to data analysis and methodology. This part of the written exam can be completed at a location of the student's choice. One week will be allowed for completion.
- Part 2: Students will be given a specific question by their committee to be completed in the Department (i.e. closed book).
- Part 3: Students will be given an oral examination by their committee. The oral examination will include questions related to the written exam, specific knowledge of the field, as well as other directed discussion.

The minor department may employ other formats for the qualifying examination in the minor area.

When the qualifying exam is finished, the student's committee chair should complete and have the committee members sign the *Result of the Qualifying Exam* form (also included with this document or on the department website). This form should be placed be submitted to the Chair of the SLHS Doctoral Committee (Dr. Story) and then filed in the student's department file.

Comprehensive Exam Committee

All students must take a **Comprehensive Exam** that includes representation from both the major and minor departments. According to the Graduate College, the examining committee must consist of a minimum of four members. The Major Advisor and two additional members must be tenured, or tenure track. The fourth member may be tenured or tenure-track, or a special approved member. Special members must be pre-approved by the Dean of the Graduate College. Any members beyond the fourth can also be tenured or tenure-track, or special approved members. A faculty member from the student's minor department may also be a member of the comprehensive exam committee, depending on the Minor department's requirements. Each student, in collaboration with their committee chair, will complete the *Plan for Conducting the Comprehensive Examination* form that can be found at the end of this document or on the department website. This form should be submitted to the Chair of the Doctoral Committee prior to the exam.

The comprehensive examination consists of two parts, written and oral. The written portion of the examination must be completed before the oral portion may be scheduled. The requirement of a written comprehensive examination in the major area can be satisfied in **one of two ways**:

- 1. a traditional "closed-book" written examination. Under the closed-book option, the student completes one three-hour examination in each of the areas of study represented by the examination committee members.
- 2. an "open-book" written examination. Under the open-book option, the student is given a set of questions developed by their committee, for which they are given two weeks to write answers (i.e., two weeks to write answers to all of the questions). Because of the time allowed and open access to resources, the questions in this second option typically requires more in-depth answers than the first.

The written work from the exam is turned in to the Chair of the Comprehensive Exam Committee; the Chair will then distribute the material to the committee. The minor department may prefer other formats for the written comprehensive examination in the minor area. The student must comply with the minor department requirements. Questions about the format or conduct of the examination should be directed to the SLHS Chair of the Doctoral Admissions and Policy Committee.

Upon successful completion of the written examinations in the major and minor(s), the Oral Comprehensive Examination is conducted with the examining committee. This is the occasion when faculty committee members have both the opportunity and obligation to require the student to display a broad knowledge of the chosen field of study and sufficient depth of understanding in areas of specialization. Discussion of proposed dissertation research may be included. The examining committee must attest that the student has demonstrated the professional level of knowledge expected of a junior academic colleague. The date of the oral examination needs to be filed with the graduate college using GradPath.

The formal oral examination is administered by the examination committee. The chair submits the the outcome of the comprehensive examination to the Graduate College via GradPath. The oral examination is usually structured on the basis of the previous written work (traditional examination or research option), but it may cover <u>any</u> aspect of the student's preparation. The duration of the exam must be a minimum of one hour and no more than three hours. This examination must be completed within 6 months of the submission of the written portion of the exam.

Graduate College requirements regarding the Comprehensive Examination can be found in the Graduate Catalog online at: http://grad.arizona.edu/academics/degree-certification/gradpath

If a student fails the written examination, they are required to meet with each committee member to discuss the negative result. The exam committee will also meet to decide whether the student will be allowed to retake the exam, and if so, the conditions for the retake (e.g., how soon the exam can be retaken, preparation, etc.). If a student fails the oral exam the procedure is the same; the committee will decide whether to allow a retake, and if so, the conditions of the retake. The difference, however, is that the Graduate College must be informed of the failing evaluation on the oral examination.

Prospectus/Dissertation Committee

The prospectus/dissertation committee chair is the student's major advisor. The prospectus/dissertation committee may comprise those individuals who have served on previous committee's for the student, or its composition may be adjusted to reflect the direction of the dissertation research.

The Graduate College requires a minimum of three members, all of whom must be University of Arizona tenured, tenure-track, or approved as equivalent. If a committee has only three members, all must approve the dissertation. In departments that require four or five members, there may be one dissenting vote. The fourth member may be tenured or tenure-track, or a special approved member. Special members must be pre-approved by the Dean of the Graduate College. Any members beyond the fourth can also be tenured or tenure-track, or special approved members.

The first step toward the dissertation is preparation of a prospectus document. It should include a review of the relevant literature, statement of hypotheses and specific aims, description of the research methods, and report of pilot data and data analyses if available. The expected format and extent of the document should be discussed and negotiated between the student and advisor. For example, a prospectus might be written in the form of a grant application, as a first draft of the dissertation document, or some other format. These agreed upon expectations should be made clear to the other members of the dissertation committee. A formal prospectus meeting is scheduled in which the student presents the proposal to the committee. Note, however, that during the development of a prospectus, it may be advantageous for the student to schedule one or more "pre-prospectus" meetings with the committee in order to obtain input concerning the dissertation topic, hypotheses, possible methods to be used, etc. The committee serves to advise the student on the quality of the dissertation proposal and may suggest modifications and/or additions to any aspect of the proposal. The committee should receive the written prospectus at least one week prior to the scheduled prospectus meeting. A copy of the prospectus document should be put into the student's file in the departmental office. In addition, the dissertation director should submit a signed note to the student's file indicating that the prospectus meeting was completed.

All students are required to **present their dissertation proposal** at a departmental colloquium. It is advantageous to do this prior to the formal prospectus meeting so that feedback from a diverse audience might be received. If scheduling conflicts do not allow this presentation to take place prior to the prospectus meeting, it should be completed as soon after as possible.

Members of the prospectus committee typically serve on the final dissertation examination committee, although this is not a absolute requirement. The Graduate College requires a minimum of three committee members from the University of Arizona. A student may wish to consider more members to enhance the expertise of the committee.

Prior to the dissertation defense, student must submit an "Announcement of Final Oral Examination" via GradPath. At least one week prior to the dissertation defense, the student must submit an advertisement of the defense to the SLHS departmental secretary. This will be distributed to

faculty and students within the department, the School of Mind, Brain, and Behavior, and to other potentially interested parties outside the department. The dissertation defense must be held publically and scheduled such that it does not conflict with the departmental colloquium. In some cases, the defense may be held as the departmental colloquium with mutual agreement by the student and advisor. The priority of any scheduled defense is to accommodate the dissertation committee. The defense should be scheduled in a classroom in the SLHS department. The dissertation committee chair presides over the examination.

Dual Degree Program: Au.D./Ph.D.

Students enrolled in the dual degree program must complete all of the requirements for each program to complete their degrees. Details regarding the dual program are outlined below.

- 1. Candidates must make formal application to each program, the Au.D. and Ph.D.
- 2. An overlap of 28 credit hours is allowed:

As an example, the list below summarizes the degree requirements that could overlap:

Courses	Units
1) Minor requirements	9
2) SLHS 500 Research Methods	3
3) SLHS 588[a,b or c] plus lab	4
5) SLHS 596G	3
6) SLHS 568	3
7) SLHS 900 in lieu of SLHS 912	6
TOTAL	28

3. The following 3-unit courses can be used to fulfill unit requirements for both the Ph.D. and Au.D.

SLHS 500 Research Methods SLHS 568 Speech Perception

SLHS 596G Cochlear implants, Brainstem Implants, & Bone-Anchored Hearing Aids

- 4. Both degrees require a 9-unit minor. The minor can be counted toward both degrees. A caveat is that, although an AuD-only student is allowed to minor in Speech, Language, and Hearing Sciences, a student in the AuD-PhD dual degree program will be required pursue a minor outside the department.
- 5. Up to 6 units of 900 "research" registration required for the Ph.D. can be used for 6 units of SLHS 912 "audiology doctoral project" for the Au.D. It will be a mentored, experimental research effort, resulting in a written document, and also presented publicly and defended the ADP required by the Au.D. program. The additional 3 units of SLHS 912 required for the Au.D. will be waived for those dually enrolled in Au.D. and Ph.D. programs. Please be aware that any units of SLHS 912 earned prior to admission to the dual program cannot be used to fulfill the PhD program requirements of SLHS 900 research.
- 6. Those in the Ph.D. program will complete at least one additional research rotation prior to the dissertation in addition to these 6 units of research registration shared between the program.
- 7. Au.D.-Ph.D. students will complete both the comprehensive exam for the Au.D. (given at the end of the 2nd year of the program), **and** the comprehensive exam for the Ph.D. (normally given after coursework and research rotations have been completed).
- 8. Au.D.-Ph.D. students will complete both a final oral defense of the dissertation for the Ph.D. and a final exam (oral) for the Au.D. The exams will be scheduled independent of one another.

Making Satisfactory Academic Progress

The Ph.D. degree is typically completed in four years. Doctoral students must maintain a 3.0 minimum GPA during the doctoral program.

Although each student's doctoral program is unique, the following is an example timeline that would assure satisfactory progress:

Year 1

HIPAA and human subjects protection training

Establish qualifying exam committee

Take qualifying examination

Choose minor area of study

Prepare Plan of Study (department)

First semester

Second semester

Complete a full load of coursework

Complete an independent study in mentor's lab

First or second semester

File an available and available a

File annual progress report with committee Second semester

Year 2

Submit Plan of Study (Graduate College/GradPath)** Third semester

Continue with a full load of coursework

Complete a research rotation or preceptorship

Third and fourth semesters

Third or fourth semester

File annual progress report with committee Fourth semester

Year 3

Complete a second research rotation or preceptorship
Identify a Comprehensive Examination Committee
Complete the written and oral comprehensive exam
Fifth or sixth semester
Fifth or sixth semester

(Graduate College/GradPath)

Identify a Dissertation Committee Fifth or sixth semester

Prepare prospectus for dissertation (e.g., F31 proposal)

Fifth or sixth semester

Obtain approval of dissertation concept

Do before colloquium

Present a colloquium on dissertation concept

File annual progress report with committee

Sixth or early seventh semester

Sixth semester

Year 4

Complete doctoral research Seventh semester

Submit Doctoral Advancement to Beginning seventh semester

Candidacy (Graduate College/GradPath)**

Schedule final Oral Defense Examination Eighth semester

Submit the Announcement of Oral Defense 3 weeks before date of examination

Examination (Graduate College)**

Submit the final copies of dissertation to Graduate College.

**Graduate College forms can found using UAccess: http://grad.arizona.edu/gradpath

Appendix A

Speech, Language, and Hearing Sciences: "Quick Guide to Doctoral Program Requirements"

What follows are separate lists of requirements and recommendations for our doctoral students. These are taken directly from the current Cactus Book which contains much more information concerning exam format, program options, suggested timelines, etc., but this should serve as a quick reference for mentors and students.

Note: Each requirement is followed by either SLHS, GC, or UA. These refer to whether the requirement is departmental (SLHS), Graduate College (GC), or University policy (UA). In general, any GC-based requirement involves student and/or faculty action in **GradPath**.

Requirements

- Every student is required to have a doctoral mentor/advisor who is a member of the SLHS faculty. (SLHS)
- Every student must receive HIPAA training to participate in any clinical endeavor. (UA)
- Every student is required to complete the **Human Subjects Protection Training Program** approved by the University of Arizona. **(UA)**
- Students must obtain or be covered by IRB approval for research projects involving human subjects. Students should consult their mentors, research supervisors, and the chair of the departmental Human Subjects Review committee for clarification on when and how IRB should be obtained. (UA)
- Individuals who did not complete a master's thesis prior to enrolling in the doctoral program are
 required to complete a thesis-equivalent research project and present this research in a public
 forum (e.g. colloquium, seminar, conference, etc.). The topic and extent of this project, as well
 as the presentation venue, will be determined by mentor and student. This project must be
 completed prior to taking the comprehensive exam. (SLHS)
- Students are required to be involved in **laboratory-based research during each semester** of their doctoral program. This may be in the form of a laboratory rotation, project assignment by a mentor, independent study, or dissertation research. **(SLHS)**
- Students are required to complete a **minimum of 36 graduate semester credits** according to the plan of study approved by the student's mentor and Qualifying/Program Development committee. These credits are in addition to credits obtained via dissertation research and audits. **(GC)**
- Required courses (SLHS)
 - SLHS 649 Survival Skills and Ethics (3 credits)
 - SLHS 696A Doctoral Seminars in Speech, Language, and Hearing (4 credits)
 - SLHS 696A Grant Writing (2 credits)
 - **SLHS 900** Laboratory research rotations (two registrations for 3 units each); one rotation must be in a lab other than that of the student's primary mentor.
- Students are required to complete or present ("take or show") coursework to the Qualifying/Program Development Committee that is equivalent to SLHS 500. (SLHS)
- The Graduate College requires that a student complete a formal **minor** course of study. The minor must consist of at least **9 credits** of graduate-level coursework. **(GC)**

- Students are required to file an **annual report** at the end of each spring (due April 1) and student progress will be reviewed annually by the faculty. Note that each student should document at least one research presentation per year. This could consist of a presentation at a lab meeting, colloquium, conference, or other venue. **(SLHS)**
- All students must take a Qualifying Exam and conduct a Program Planning meeting. These should both be completed in the first semester of the doctoral program but is flexible depending on the specific circumstances of the student's program. The department forms for "Plan for Conducting the Qualifying Exam" and "Results of the Qualifying Exam" must be filed with the Ph.D. Committee Chair (Story) and Denise Minopoli. (SLHS)
- Must submit the "Doctoral Plan of Study" to the Graduate College. This is generally completed early in the second year of the doctoral program through *GradPath*. (GC)
- All students must take a Comprehensive Exam that includes representation from both the major and minor departments, and must include both written and oral portions. The first step is for the student to file the "Comprehensive Exam Committee Appointment Form" in GradPath. The "Announcement of Doctoral Comprehensive Examination" is scheduled by the student in GradPath. This will initiate an email sent to the committee chair that will contain a GradPath link for reporting the "Results of the Oral Comprehensive Examination for Doctoral Candidacy" to the Graduate College.
- Following successful completion of the Comprehensive Exam, and appointment of a dissertation committee, a student must submit a "Committee Appointment" form to the Graduate College via GradPath. This formalizes the student's Advancement to Candidacy for the PhD. (GC)
- All students are required to prepare a prospectus document and hold a prospectus meeting
 with their chosen dissertation committee. A copy of the prospectus document should be put
 into the student's file in the departmental office. In addition, the dissertation director and
 student should file the "Verification of Prospectus/Proposal" form via GradPath (GC).
- All students are required to present a dissertation proposal at a departmental colloquium.
 (SLHS)
- Prior to the dissertation defense, student must file the "Announcement of Final Defense" form
 in *GradPath*. This will initiate an email to the committee chair with a link to the "Results of Final
 Defense" form. This link should be saved and used at the completion of the defense. (GC)
- At least one week prior to the dissertation defense, the student must **submit an advertisement of the defense to the departmental secretary**. This will be distributed to faculty and students within the department, the School of Mind, Brain, and Behavior, and to other potentially interested parties outside the department. **(SLHS)**
- The dissertation defense must be held publically and scheduled such that it does not conflict or coincide with the departmental colloquium. The defense should be scheduled in a classroom in the SLHS department. (SLHS/GC).

For a list that summarizes the official Graduate College forms that will be filed in *GradPath* over the course of your Ph.D. program see:

http://grad.arizona.edu/gsas/degree-requirements