Department of Speech, Language, and Hearing Sciences

2013-2014

Student Handbook

“The Cactus Book”

Doctor of Philosophy

Department of Speech, Language, and Hearing Sciences
The University of Arizona
1131 E. 2nd Street
P.O. Box 210071
Tucson, Arizona 85721-0071
GENERAL INFORMATION

INTRODUCTION

The Doctor of Philosophy (Ph.D.) program prepares students for academic and research careers through coursework and participation in research projects.

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.
Doctor of Philosophy Program

The Ph.D. program in the Department of Speech, Language, and Hearing Sciences has as its goal the development of outstanding independent researchers and teachers. Program graduates will 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. Students should seek multidisciplinary experiences and skills to enhance their research careers.

The Department encourages diversity among applicants to the program and will develop programs of study for individual students. Each student's program is designed in consultation with the student's program committee. Further, each doctoral student will go through a rigorous mentoring process involving the major professor selected by the student. In addition, a range of research experiences with members of the faculty of the University, principally inside the Department, but also outside of it will be provided as is appropriate to the student's program of study. 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.
ACADEMIC PROGRAM

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.

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.

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. A 9-unit minor is required, as well as 18 units of dissertation (SP H 920). At least 23 units must be in courses in which regular grades (A,B,C) have been earned.

Three specific courses and 9 units of “tools” coursework (defined below) are required of all doctoral students, and will account for 23 of the 36 credit hours:

- **SP H 649**  
  Survival Skills and Ethics (one 3-unit registration)

- **SP H 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). SPH 696a will be offered by various faculty on a diverse range of topics.

- **SP H 900**  
  Research (two registrations for 3 units each)

**Tools**  
(9 units total) Provides tools for the conduct of research. Must show at least 9 units of coursework in such areas as statistics, programming, instrumentation/measurement, technologies employed in research. The specific coursework that fulfills the 9 unit requirement will be determined via consultation with the student’s advisor and planning committee (qualifying exam committee).

It is also recommended that students complete a graded research course (non-900 level).
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.

**Research Rotations (SP H 900)**

Students are **required** to complete a minimum of two **research rotations** 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:

- SP H 500 - Introduction to Research Methods in Speech and Hearing Sciences. Doctoral students should plan on enrolling in SP H 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.

The Doctoral Degree Study Program should be completed by the end of the first year (see Appendix A).

**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 is 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 style of publications in the field.
3. The ability to present information in poster format.
4. The ability to write and manage human subjects-related documents.

Scientific competencies:

1. 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.

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.

**Teaching Preparation**

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

Year 1: Obtain information from the UA Teaching Center  
Take A ED 697c – Workshop on Teaching at the College Level

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  
Lecture Notes  
Be observed by supervising professor

**Making Satisfactory Academic Progress**

The Ph.D. degree is typically completed in four years, yet some individuals complete in three. 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**

- Complete human subjects training  
- Establish qualifying exam committee  
- Take qualifying examination  
- Choose minor area of study  
- Establish major and minor committees  
- Prepare degree study program (department)  
- Complete a full load of coursework  
- Complete an independent study in mentor’s lab  
- File annual progress report with committees

First semester

**Year 2**

- Submit Plan of Study (Graduate College)**  
- Continue with a full load of coursework  
- Complete a research rotation or preceptorship  
- File annual progress report with committees

Third semester

Second semester

Third and fourth semesters

Third or fourth semester

Fourth semester
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<tr>
<th>Year 3</th>
<th>Fifth or sixth semester</th>
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<tr>
<td>Complete a second research rotation or preceptorship</td>
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<tr>
<td>Identify a Comprehensive Examination Committee</td>
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<tr>
<td>Complete the written and oral comprehensive exam</td>
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<tr>
<td>Identify a Dissertation Committee</td>
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<tr>
<td>Prepare a prospectus for dissertation</td>
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<tr>
<td>Obtain approval of dissertation concept</td>
<td>Do before colloquium</td>
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<tr>
<td>Present a colloquium on dissertation concept</td>
<td>Sixth or early seventh semester</td>
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<tr>
<td>File annual progress report with committees</td>
<td>Sixth semester</td>
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<tr>
<th>Year 4</th>
<th>Seventh semester</th>
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<td>Complete doctoral research</td>
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<tr>
<td>Submit Doctoral Advancement to Candidacy (Graduate College)**</td>
<td>Beginning seventh semester</td>
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<tr>
<td>Schedule final Oral Defense Examination</td>
<td>Eighth semester</td>
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<tr>
<td>Submit the Announcement of Oral Defense Examination (Graduate College)**</td>
<td>3 weeks before date of examination</td>
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<tr>
<td>Submit the final 2 library copies of dissertation</td>
<td>See Grad College deadlines</td>
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**Graduate College forms can be downloaded from the following website:**
http://grad.arizona.edu/current_students/forms

**Annual Report**

Students are required to submit their most current CV by April 1 of each year, and to maintain satisfactory progress toward the degree. 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 listed. Your advisor will discuss the recommendations with you and you will be asked to summarize your understanding of them. 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.

**Policy on Major Advisor**

Every student is required to have a **doctoral mentor/adviser**. Although the major advisor is selected prior to admission into the program, circumstances may develop that cause you to want to change your 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.

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. Students will receive information about departmental policies for protecting the confidentiality of client/patient information on Orientation Day. All students must receive HIPAA training to participate in any clinical endeavor. Please see Appendix C for a copy of the departmental policy and the actions that will be taken should a policy violation occur.

Human Subjects Training

All students are required to complete the Human Subject Training Program. This can be done online at http://www.irb.arizona.edu/training

Institutional Review Board (IRB) Approval

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. 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://www.irb.arizona.edu/

EXAMINATIONS AND COMMITTEES
Policy on Committees

Doctoral students will have four committees during their training: the Qualifying Exam Committee, the 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, colloquium slides, 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 is comprised 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.

Doctoral students must also choose a minor area of study. 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 dept website). This form should be placed in the student’s departmental file.

Comprehensive Exam Committee

All students must take a Comprehensive Exam that includes representation from both the major and minor departments. “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.” From UA Graduate College website. A faculty member of 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) through a traditional "closed-book" written examination, or (2) an "open-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. In 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 require more in-depth answers than in the first option. In either case, the written work should be 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 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 before the examining committee of the faculty. 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.” From UA Graduate College website.

The formal oral examination is administered by the examination committee. A member of the committee (other than the advisor) acts as a reporter for the Graduate College to insure that the exam is administered fairly. This individual will file a report with the Graduate College. The oral examination is usually structured on the basis of the previous written work (traditional examination or research option), but it may cover any aspect of the student’s preparation. This examination must be completed within 6 months of the submission of the written materials. Graduate College requirements regarding the Comprehensive Examination can be found in the Graduate Catalog online at: http://grad.arizona.edu/Current_Students/Program_Requirements/Comprehensive_Examination.

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 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.

From the Graduate College Handbook website:

“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 towards 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 prospectus meeting is then scheduled where the student presents the proposal to the committee. 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.

The members of the prospectus committee usually also serve on the final dissertation examination committee, although this is not an 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” to the Graduate College. 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 or coincide with the departmental colloquium. The defense should be scheduled in a classroom in the SLHS department. The dissertation director presides over the examination.

- 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.
T32 Doctoral Training Program

The T32 program is intended to provide simultaneous training in clinical practice and research, and will lead to both a Master’s Degree or AuD, and ultimately a PhD. Students who participate in this program, and their faculty advisors, need to be aware of the requirements of both the Master’s/AuD programs as well as those of the Doctoral program detailed here to ensure timely progress toward the multiple degrees. T32 participants may also have additional training activities that are required by the funding source (i.e., NIH), and should consult with the T32 Supplement and with program directors, Drs. Plante and Cone, to ensure completion of those activities.

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 official paperwork to be submitted to the Graduate College.

Requirements

• Every student is required to have a doctoral mentor/adviser. (SLHS)

• Every student must receive HIPAA training to participate in any clinical endeavor. (UA)

• Every student is required to complete the Human Subject 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)**
  - SP H 649  Survival Skills and Ethics (3 credits)
  - SP H 696A  Doctoral Seminars in Speech, Language, and Hearing (4 credits)
  - SP H 696A  Grant Writing (2 credits)
  - SP H 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 SPH 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 submit their most current CV by April 1 of each year. This serves as your **annual report**. *(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. *(SLHS)*

• Must submit the “**Doctoral Plan of Study**” to the Graduate College. This is generally completed at the end of the first year or early in the second year of the doctoral program. *(GC)*

• All students must take a **Comprehensive Exam** that includes representation from both the major and minor departments. Both written and oral components of the exam are required. Committee reporter must submit “Results of the Oral Comprehensive Examination for Doctoral Candidacy” to the Graduate College. *(GC)*

• 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. 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 should submit a signed note to the student’s file indicating that the prospectus meeting was completed. *(SLHS)*

• All students are required to present a dissertation proposal at a departmental colloquium. *(SLHS)*
• Prior to the dissertation defense, student must submit an “Announcement of Final Oral Examination” to the Graduate College. (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)