



School of Health and
Rehabilitation Sciences

Communication Science and Disorders

PhD Program Handbook 2026-2027



CSD PhD Handbook
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ABOUT THIS HANDBOOK

This handbook is intended to serve as a guide to the mission, training goals, and structure of the CSD PhD program, and the policies and procedures that should guide students as they work toward accomplishing their PhD training goals. It also describes some resources available to support CSD PhD students as they work toward their training goals. It supplements material available from the University of Pittsburgh Provost's office (<https://www.gradstudies.pitt.edu/>) and information about policies and procedures for graduate students in the School of Health and Rehabilitation Sciences (SHRS), which can be found in the SHRS Graduate Student Handbook (<https://www.shrs.pitt.edu/student-handbooks/>). **It is a work in progress.** If you have suggestions, updates, or corrections for this handbook, or a question regarding the policies and regulations described here, please contact the CSD Director of Research Training (Dr. Jason Bohland; j.bohland@pitt.edu), who serves as the director of the CSD PhD program.

MISSION OF THE CSD PhD PROGRAM

The mission of the CSD PhD program is to prepare the next generation of researchers driving the generation, dissemination, and application of knowledge in the science and practice of audiology and speech-language pathology.

INCLUSION AND BELONGING IN THE CSD PhD PROGRAM

Consistent with the mission of the CSD PhD program, the program aims to ensure that the next generation of researchers in communication science and disorders is prepared to address and advance concerns related to belonging, equity, justice, and inclusion in research, in the laboratory and classroom, and in everyday practice.

CO-CREATING A HEALTHY CULTURE OF INCLUSION AND BELONGING IN PITT CSD

The CSD PhD program is committed to building a culture where individuals who have been traditionally excluded from our disciplines are welcomed and empowered to achieve, fostering a sense of belonging for all people in our community. Conversations about belonging, equity, justice, and inclusion in our fields can sometimes feel uncomfortable and challenging. In these moments of opportunity to share and receive differing viewpoints, it is important that everyone involved in such discussions makes the effort to communicate as thoughtfully and respectfully as possible. We seek to create a culture of humility in which individuals feel free to voice their thoughts and opinions while actively learning from the thoughts and opinions of others. We ask students to participate in these conversations and to speak up when we as a community can do better. **No student will be penalized for voicing any concerns or complaints.**

The SHRS Office of Community Engagement and Global Health Initiatives (OCE&GHI; <https://www.shrs.pitt.edu/community-engagement/>), directed by Associate Dean and Pitt CSD faculty member, Dr. Nancy Gauvin, envisions a welcoming community of learners, research scientists, health care providers and changemakers within the community of faculty, staff, students and administration. This office supports several initiatives including SHRS Affinity Groups and the SHRS Brave Space and Pantry, located on the 8th floor of Fifth and Halket, Room 8609.

The University of Pittsburgh Office of Inclusion & Belonging (<https://www.studentaffairs.pitt.edu/inclusion-and-belonging>) provides additional resources and student supports through Black, Indigenous, and People of Color (BIPOC) student engagement and organizations, international student programs, LGBTQIA+ student programming, interfaith engagement, and racial justice resources. Additional Student Affairs resources for graduate and professional students can be found at: <https://pi.tt/gradresources>.

If a conflict or concern arises, students are encouraged to connect directly with the relevant parties, in the moment, through a private meeting, or via email. For concerns that cannot be adequately resolved in this manner, students are encouraged to bring these matters to the PhD program director and/or members of the CSD or SHRS leadership teams. Students also have access to neutral, third party resources. In the SHRS Office of Student Affairs (<https://www.shrs.pitt.edu/directory/offices/#student-affairs>), Executive Director Jessica Maguire serves as the Ombudsperson, an unbiased, neutral official, who can mediate and help resolve conflicts while maintaining confidentiality. The Schools of the Health Sciences also have a Health Sciences Ombuds Office (<https://hsombuds.pitt.edu/>), established in 2024 to provide a “confidential, unbiased place for all students and postdoctoral fellows in the schools of the health sciences to voice concerns, seek guidance, and explore options to resolve conflicts that arise.”

GOALS OF THE CSD PhD PROGRAM

The Department of Communication Science and Disorders (CSD) aims to provide a comprehensive program of primary research, training, and clinical education that will advance the understanding of normal processes in human communication, aerodigestive function, swallowing, balance, and related domains, pathophysiology of diseases leading to disorders in these domains, as well as assessment, treatment, and management of disorders impacting these processes across the life span. The PhD program in Communication Science and Disorders is an individualized, mentored, interdisciplinary research degree intended to develop leaders in research, teaching, and service. The primary aim of the PhD program is to prepare students for responsible and productive careers as teacher-scholars, by equipping them with necessary knowledge and skills in primary disciplines of audiology and speech-language pathology. In fulfilling this mission, faculty in the department as well as researchers in the University and allied programs in the greater Pittsburgh community contribute to the training of PhD students and the development of scholars specializing in human communication and aerodigestive science and disorders.

The PhD training goals described above are to be achieved by attaining the core CSD PhD competencies described in [Table 1](#) below. These core competencies are achieved through a variety of formal and informal activities, including didactic classwork inside and outside CSD, workshops and other training experiences, laboratory experiences, and both formal and informal mentoring. These activities are further described in the CSD PhD curriculum map ([Table 2](#)).

STRUCTURE OF THE CSD PHD PROGRAM

CSD AND THE BROADER TRAINING ENVIRONMENT

CSD at the University of Pittsburgh is embedded in a rich research and clinical context. This context enables students to craft their own individualized training plan, enabling attainment of the training goals and core competencies above.

CSD is housed in the School of Health and Rehabilitation Sciences (SHRS). Other departments in SHRS include: Community Health Services and Rehabilitation Science, Counseling and Behavioral Health, Health Information Management, Occupational Therapy, Physical Therapy, Physician Assistant Studies, Rehabilitation Science and Technology, and Sports Medicine and Nutrition. CSD shares with other departments in SHRS the goals of advancing the basic science of critical human capacities (like communication), understanding the nature of and improving treatment for disorders affecting those capacities, and promoting successful living by people with related disabilities.

Table 1: CSD PhD Core competencies

1. Comprehensive depth and breadth of knowledge in program specialization within Communication Science and Disorders (CSD)
a. <u>Specialized training</u> : Acquire core knowledge of critical concepts, methodologies, and theoretical frameworks in a chosen specialized area within CSD
b. <u>Interdisciplinary breadth</u> : Develop understanding of an interdisciplinary perspective, and ability to assess how related fields merge and intersect with selected specialized area
c. <u>Theoretical grounding</u> : Develop critical thinking and analytical skills needed for practicing scientists in chosen specialized area within CSD
2. Develop ability to conduct and communicate scholarly research
a. <u>Analytical methods</u> : Demonstrate an understanding and application of statistical theory and experimental design required for conducting novel research in CSD
b. <u>Research conduct</u> : Develop the ability to conduct independent research projects within selected specialized area within CSD
c. <u>Scientific communication</u> : Develop the ability to communicate critical scientific information effectively in oral and written modalities
3. Professional preparation in CSD
a. <u>Teaching and mentoring preparation</u> : Acquire teaching and mentoring experience
b. <u>Grantsmanship</u> : Develop the ability to procure funding for research and other scholarly pursuits
c. <u>Ethical conduct</u> : Develop an understanding of research ethics and incorporate ethical standards in own research
d. <u>Professional practice</u> : Develop the ability to evaluate disciplinary research and contribute to the scientific review process
4. Professional and career development
a. <u>Professionalism and service</u> : Acquire service experience inside and outside CSD (academic, professional, community)
b. <u>Management and leadership</u> : Develop management and leadership skills needed for academic success
c. <u>Career development</u> : Develop and refine tools needed for post-PhD placement and long-term success

There are two PhD programs in SHRS: the CSD PhD program, and the PhD in Rehabilitation Science (RS). Students in the CSD and RS PhD programs interact informally, in the context of shared courses (such as the statistics sequence HRS 2927 / 2928, taught by Dr. Lauren Terhorst; and the Advanced Grant Writing sequence HRS 2071 / 2074), research labs, and presentations and seminars. The CSD PhD program is one of the largest in the country. There are also several professional doctorate programs in SHRS, including the Doctor of Audiology (AuD), Doctor of Chiropractic (DC), Doctor of Occupational Therapy (OTD), and the Doctor of Physical Therapy (DPT). CSD PhD students may also interact informally with students in other professional programs in CSD and SHRS, in the context of classes, labs, and seminars.

Pitt CSD is also embedded in and enriched by a strong network of clinical and research partner programs across the University of Pittsburgh and the broader Pittsburgh community. These include departments and schools within Pitt and the University of Pittsburgh Medical Center (such as [Neuroscience](#), [Otolaryngology](#), [Engineering](#), [Education](#), and [Psychology](#)), allied institutions in Pittsburgh (such as [Carnegie Mellon University](#), [Duquesne University](#), the [Center for the Neural Basis of Cognition](#), and the

[Learning Research and Development Center](#)), and clinical partner institutions (including the University of Pittsburgh Medical Center and VA Pittsburgh Healthcare System). CSD PhD students may take advantage of coursework, research, and clinical experiences across these programs as they build a personalized program of study, designed to help them to attain their training goals.

CSD PhD CURRICULUM MAP

The CSD PhD program helps students to attain their training goals by providing them with a structured set of formal and informal training experiences across classroom, laboratory, and other settings, leading to achievement of key program milestones. The CSD PhD curriculum map in [Table 2](#) lays out these training experiences and milestones and shows how they map onto achievement of the CSD PhD core competencies described above ([Table 1](#)).

The coursework requirements and milestones described in the CSD PhD curriculum map are further described below in the relevant Policies of the CSD PhD Program subsections.

Table 2: CSD PhD curriculum map

Core Competencies	Coursework	Milestones	Informal activities
1. Comprehensive depth and breadth of knowledge within CSD			
<i>Specialized training</i>	Research practicum (CSD 3971); Courses outside CSD	Pre-dissertation project	Experiences inside home lab
<i>Interdisciplinary breadth</i>	CSD PhD seminars: Courses outside CSD; Research Round Table (CSD 3061); Lab rotations	None	Lab experiences outside home lab (including within research clusters) Conference attendance
<i>Theoretical grounding</i>	CSD PhD seminars; Intro to PhD Studies (CSD 3048); PhD comps (CSD 2972)	PhD comps, Prospectus	Lab experiences
2. Conducting and communicating scholarly research			
<i>Analytical methods</i>	8 credits minimum requirement for Research Design, Statistics, and Programming and Computation; Lab Rotations	Pre-dissertation project, Prospectus	Lab experiences
<i>Research conduct</i>	Research practicum (CSD 3971) Dissertation credits (CSD 3000)	Pre-dissertation project Dissertation	Lab experiences; RCR Training and Workshops https://ctsi.pitt.edu/education-training/responsible-conduct-of-research-training/
<i>Scientific communication</i>	Intro to PhD Studies (CSD 3048) Research Round Table (CSD 3061) Advanced Grant Writing (HRS 2071, 2074)	Comps (written, oral defense); Prospectus defense; Dissertation defense; Article submission requirement	CSD 3048 presentations (1 st year); pre-dissertation presentations in RRT (1 st , 2 nd year); Lab meetings
3. Professional preparation in CSD			
<i>Teaching and mentoring preparation</i>	Teaching practicum (CSD 2970), TA position, FACDEV 2200, CRTL certificate (Associate level)	Required teaching experience	Guest lectures, informal mentoring inside research lab
<i>Grantsmanship</i>	Advanced Grant Writing (HRS 2071, 2074)	Grant application requirement (SHRS)	Assisting mentor with grant applications; submitting own applications (F31; SHRS diss grant)
<i>Ethical conduct</i>	Intro to PhD Studies (CSD 3048); Office of Research Protections seminar series (optional)		Ethics training requirements for F31
<i>Professional (research) practice</i>	Intro to PhD Studies (CSD3048) Research Round Table (CSD 3061)		Conference and workshop attendance
4. Professional and career development			
<i>Professionalism and service</i>	Office of Academic Career Development (OACD), Health Sciences: Essential Professional Skills Series (optional); CSD 3061 (2 nd year PhD student organizers)		Service on CSD, University, or external organizations; co-review of journal articles with mentor; collaborations internal/external to home lab; Pitt CSD podcast (PhD student organizers); Serving as PhD student representative
<i>Management and leadership</i>	CTSI RCR training (optional)	Management of pre-dissertation project, dissertation project	Achieved through labwork (e.g., training/managing UG or junior graduate-student lab members), serving as PhD student representative
<i>Career development</i>	Research Round Table (CSD 3061); OACD Foundations of Successful Career Planning and Development course (optional)		Achieved through labwork (e.g., reviewing job descriptions; drafting, giving/receiving feedback on application materials, interviews, job talks)

POLICIES OF THE CSD PhD PROGRAM: SHRS PROGRAM REQUIREMENTS

This section lists requirements for all SHRS PhD students (both CSD and RS). They are listed in the chronological order in which they must be completed (earlier to later in the program).

PROGRAM ENTRY REQUIREMENTS

When students enroll in the CSD PhD program, they will need to (1) complete a module on academic integrity and plagiarism, and (2) read and acknowledge their agreement to abide by the relevant student handbooks.

Both of these requirements should be completed by either October 1 (for students beginning the PhD program in the Fall term) or February 1 (for students beginning the PhD program in the Spring term) of the year you enroll in the CSD PhD program.

Plagiarism module: Students will self-enroll in the University Library System's Academic Integrity Canvas Course. Successful completion of this self-paced course (see here: <https://pitt.libguides.com/academicintegrity> and <https://pi.tt/academicintegrity> for a direct link to the Canvas course). Completing the course yields a digital completion badge; please submit a copy to the CSD Administrator for Academic Affairs and Admissions, Laura Martin (Imm322@pitt.edu) for your file.

Handbook acknowledgment: Incoming students need to sign and submit a form indicating that they have read and understood, and agree to abide by, the policies in (a) the SHRS Graduate Student Handbook (which you can find at <https://www.shrs.pitt.edu/student-handbooks/>) and (b) this handbook (CSD PhD handbook). *Please contact Laura Martin (Imm322@pitt.edu), who will generate a DocuSign version of the Handbook Acknowledgment form to complete.*

SHRS MANUSCRIPT AND GRANT WRITING REQUIREMENTS

Manuscript submission requirement

Prior to scheduling the dissertation defense, each PhD student will demonstrate a minimum amount of experience in manuscript writing and submission by completing:

- 1 co-authored manuscript accepted for publication, and
- 1 first authored manuscript submitted and reviewed by a peer-reviewed journal.

Data-based manuscripts are strongly preferred.

Grant writing requirement

Prior to scheduling the dissertation defense, each PhD student will demonstrate a minimum experience with grant writing and submission by completing at least one of the following:

- Completion of a grant writing course (required)
- Submission and peer-review of a Doctoral Research or Research Fellowship Grant applications (these can be from NIH, Private Foundations, or the SHRS Dissertation Grant Award)
- Submission and peer-review of Pilot study grant applications (e.g., foundations, professional societies, the UPMC Rehab Institute Pilot Award)
- Submission and peer-review of a patent application
- Submission and peer-review of an SBIR like applications, or other options to secure funding for technology development (pitching an idea for commercial development, etc.)

POLICIES OF THE CSD PHD PROGRAM: CSD PHD ACADEMIC REQUIREMENTS

This section lists requirements for all CSD PhD students. These are specific to the CSD PhD program and are in addition to the SHRS PhD student requirements listed above. These requirements are listed in roughly the chronological order in which they must be completed (earlier to later in the program).

MINIMUM ACADEMIC REQUIREMENTS

CSD PhD students must earn a 3.0 GPA or better in their courses during each semester of the PhD program. Failure to maintain a 3.0 GPA will result in re-evaluation of a student's admission to the program. Any students who do not maintain a 3.0 GPA will be asked to meet with their mentor and the PhD Program Director to discuss their progress in the program. The mentor, PhD Program Director, and CSD Department Chair will consider appropriate actions and/or develop plans for additional support. See the SHRS Graduate Student Handbook (<https://www.shrs.pitt.edu/student-handbooks/>) for further details.

ACADEMIC ADVISOR, PLAN OF STUDY, AND PLAN OF STUDY COMMITTEE

Academic advisor

Upon admission to the CSD PhD program, you will be assigned an academic advisor, who will serve as your primary research mentor. Any change of advisor must be agreed on by the student and the advisor in discussion with the CSD PhD Program Director and must be reported to the Dean's office using the Change of Academic Advisor form – see SHRS Student Resource Hub (<https://pitt.sharepoint.com/sites/shrsstudentresources>). *Please contact the Administrator for Academic Affairs, Laura Martin (lmm322@pitt.edu), who will generate a DocuSign version of the Change of Academic Advisor form for you to complete.*

Plan of Study and Plan of Study Committee

By mid-term of their first semester in their PhD program (October for fall semester, March for spring semester), CSD PhD students must draft a Plan of Study in consultation with their mentor. The plan of study will be further reviewed by your Plan of Study Committee (see below), typically leading to a valuable discussion about timelines, specific courses, other training opportunities, etc.

The plan of study consists of two components:

1. Brief statements of the student's **relevant previous experiences** (including coursework, laboratory experiences, and research projects), longer-term **goals**, and identified **strengths** and **weaknesses**.
2. A list of the **courses** and **other training experiences** anticipated to be completed each term, addressing the student's goals, strengths, and weaknesses, and an approximate **timetable** for completion of coursework and program milestones. A CSD-specific PhD Plan of Study form is available within the PhD Student Resources at <https://pitt.sharepoint.com/sites/shrsstudentresources>.

To assist with completing this process, you can find each term's course offerings in the University's schedule of classes (at <https://catalog.upp.pitt.edu/index.php>), and other universities' course offerings (such as CMU) can be found on-line. Please also take advantage of previous Plans of Study shared by other PhD students in the CSD PhD Shared Resources folders, created and maintained by the PhD student body. It is important to note that your plan is not "set in stone" and often changes during a student's course of studies.

Also by mid-term during the first semester of their PhD program, students must select a Plan of Study committee in consultation with their mentor. The Plan of Study committee must consist of **3 full-time CSD faculty members**. The purpose of this committee is to provide advice, support, and guidance as

students progress through the program, to approve their plan of study, and to monitor their progress in the program. (*Note: the plan of study committee may or may not overlap with your comprehensive examination or dissertation committees.*)

By the first month of their second term of enrollment in the program (February of Year 1 if you start the PhD program in fall term, October of Year 2 if you start in spring term), students must convene their initial Plan of Study meeting. At this meeting, the student will present their Plan of Study documents. The Plan of Study Committee will **review and approve the Plan of Study**, suggesting changes as needed. Following this initial Plan of Study meeting, the approved Plan of Study coursework form must be submitted to the CSD Administrator for Academic Affairs and Admissions, *Laura Martin* (Imm322@pitt.edu). *Laura will route a DocuSign version of the CSD PhD Plan of Study form for signatures (student, mentor, plan of study committee members).*

ANNUAL PROGRESS REPORT AND ANNUAL PROGRESS MEETINGS

Annual progress report

Starting in their second year in the program, students will be required to *submit an annual progress report*. They must submit this report by August 1 of each academic year. They will submit this progress report by completing the CSD PhD Student Annual Report Survey (a link will be provided approximately one month before the deadline). A copy of this form will be submitted to the student's advisor, the CSD Academic Affairs administrator, the CSD PhD Program director, and the SHRS Graduate Studies Administrator. *The Academic Affairs Administrator, Laura Martin, will generate a DocuSign version of this form for the student and their advisor to sign.* **Annual progress reports must be submitted once annually, from the end of the student's first year of the PhD program until graduation.**

Annual progress meeting

By October 1 of each academic year, students will be required to convene an annual progress meeting. In the annual progress meeting, the student and their Plan of Study committee or their dissertation committee (once they have advanced to candidacy) will review the student's progress for the year – particularly progress toward program milestones like completing coursework or their pre-dissertation project. The student and their committee will also highlight their achievements in research, teaching, service, and professional development, discuss any changes to their plan of study, and their plans for the upcoming year. The student is responsible for scheduling the annual meeting and updating the Plan of Study as needed. The student is also responsible for **submitting a revised plan of study** to the CSD Academic Affairs administrator. The student's mentor is responsible for **submitting a summary of the annual progress meeting** to the CSD PhD Program director.

ANNUAL PHD PROGRAM DIRECTOR REVIEW

The PhD program director will meet annually with each PhD student, following the student's annual progress meeting. **The student is responsible for scheduling this meeting.** In the meeting, the PhD program director and the student will discuss the student's annual report and their mentor's summary of the annual progress meeting, as well as the student's perspective on their own progress and their relationship with their mentor and mentoring committee. Following this meeting, the PhD program director will prepare an annual progress-review letter for the CSD Chair's review and signature.

TEACHING EXPERIENCE REQUIREMENT

One of the key competencies of the CSD PhD program is *acquiring teaching experience* (Competency 3a: Professional Preparation in CSD - Teaching Preparation; see [Table 1](#)). To support achievement of this competency, students must complete a teaching experience during their PhD program. This

requirement can be satisfied in one of three ways, with the choice of teaching experience to be made with guidance from the student's mentor and Plan of Study and/or Dissertation Committee:

1. Serving as a Teaching Assistant (TA) for a course section offered through CSD. These include:
 - CSD 1027 (Lab in Anatomy and Physiology of Speech, accompanying CSD 1023 A&P of Speech), Fall term
 - CSD 1029 (Lab in Anatomy and Physiology of Hearing, accompanying CSD 1024 A&P of Hearing), Fall term
 - CSD 1028 (Lab in Hearing Science, accompanying CSD 1025 Hearing Science), Spring term
 - CSD 1030 (Lab in Speech Science, accompanying CSD 1026 Speech Science), Spring term
 - CSD 1234 (Writing Practicum for Clinical Methods, accompanying CSD 1231 Clinical Methods in CSD), Spring term

Selection of students for this limited set of TA positions is competitive and is made by the course instructors, in coordination with the CSD Director of Research Training and department leadership.

2. Registration for FACDEV 2200 Practicum on University Teaching, or CSD 2970 Teaching Practicum. These variable-credit courses (1-3 credits) provide structured opportunities for students to develop teaching skills under the guidance of an experienced instructor. These teaching-training opportunities are intended to be completed in conjunction with an existing CSD course. If pursuing a registration for CSD 2970 or FACDEV 2200, students must consult with the Vice-Chair for Academic Affairs regarding their planned choice of existing CSD course and instructor.
3. Complete the Associate Level of CIRTL Certification. The Center for the Integration of Research, Teaching, and Learning (CIRTL) is a National Science Foundation (NSF) sponsored program hosted by the Department of Engineering focused on STEM teacher training. See description of requirements and instructions for registration [here](#).

Other teaching experiences may be considered for satisfaction of the teaching requirement (e.g., teaching a course at another college or university). Requests for consideration of such alternative experiences should be directed to the CSD PhD Program Director.

COURSEWORK REQUIREMENTS

Required Credits

A minimum of 72 credits beyond the bachelor's degree is required for the PhD degree. Up to 30 graduate-level credits (e.g., credits taken toward the completion of a master's or AuD degree) may be accepted for transfer. Up to 12 additional credits may be transferred for work *beyond the master's degree* (e.g., from another PhD program). In all cases, at least 36 credits must be completed while enrolled as a PhD student in SHRS / University of Pittsburgh. No undergraduate credits may be applied towards the doctoral degree.

Credits may be transferred during the first year of study using the CSD Credit Transfer Request Form, available on the SHRS Student Resources Hub (<https://pitt.sharepoint.com/sites/shrsstudentresources>). Transcripts and course descriptions must be submitted for each course for which transfer credit is requested. Based on University policies, students who transfer any credits from a graduate degree must complete the PhD within 8 years; students who do not transfer credits must complete the PhD within 10 years.

CSD PhD coursework requirements

The CSD PhD program is intended to provide students and their mentors with significant flexibility in designing a course of study. The specific coursework requirements for the program are summarized in [Table 3](#) and further described in the section that follows. All coursework requirements must be completed

before admission to PhD candidacy (i.e., before beginning full-time dissertation work / entering full-time dissertation status; FTDI).

Table 3: CSD PhD minimum coursework requirements (students admitted in the 2024 – 2025 academic year or later). As noted above, a minimum of 72 credits is required for graduation.

	Requirement	Course #	Minimum # Credits	Notes
Core coursework	Introduction to PhD Studies	CSD 3048	3	Complete in Year 1
	CSD PhD Seminar(s) (Topics vary by semester / year)	CSD 3049 CSD 3050 CSD 3479	3	Students must complete at least one 3-credit PhD seminar of their choice but are encouraged to complete more
	Research Round Table	CSD 3061	1 x 4 = 4	Students must register for 1-credit for each Fall and Spring semester in their first two years
	Advanced Grant Writing Part 1	HRS 2071	3	Take as Fall-Spring sequence with HRS 2074
	Advanced Grant Writing Part 2	HRS 2074	1	Take as Fall-Spring sequence with HRS 2071
Additional course requirements	Research Design and Statistics	Various	6	Students must complete at least 6 credits of research design and statistics courses suitable for their background and research approach
	Programming and Computation	Various	2	Students must complete at least 2 credits of coursework in computer programming or other computational methods
	Lab Rotations	CSD 3902	3 x 2 = 6	Students must register for two 3-credit rotations in a lab other than their own (~9 hours / week). Register for CSD 3902 until a new course number is available
	Focused Electives	Various	9	Students should select coursework with their mentor and Plan of Study committee; courses may be inside or outside of SHRS / CSD
Milestone and Research Credits	Research Practicum (pre-dissertation research)	CSD 3971	3 x 2 = 6	Students must register for CSD 3971 while working on the pre-dissertation project – typically two semesters, credit totals may vary
	PhD Comprehensive Examination	CSD 2972	3	Students should register for this course during the semester in which they complete the comprehensive exam
	Dissertation Research (including prospectus preparation)	CSD 3000	variable	Students should register for CSD 3000 when preparing their prospectus and while working on dissertation research before FTDI status
	Full-time Dissertation Research (FTDI)	FTDI 0000	0	Students register for full-time dissertation research status after completing all other requirements and reaching PhD candidacy

Introduction to PhD Studies (CSD 3048)

The Introduction to PhD Studies course is a 3-credit course required of all PhD students. This course focuses on developing critical skills in identifying and formulating scientific questions, critically analyzing the research literature, scientific rigor and reproducible research, effective scientific communications, research ethics, and professional development. It also provides first-year PhD students a focused

opportunity to develop their pre-dissertation projects. This course is offered annually. While it has typically been offered in Spring semester, it will move to Fall term, with students enrolling in their first semester.

PhD Seminar Courses (CSD 3049, 3050, 3479)

All students enrolled in the PhD program in Communication Science and Disorders are required to complete a minimum of one 3-credit PhD seminar course. The course numbers above all meet this requirement and are offered intermittently. Because course titles may not always reflect planned seminar content, students should contact course instructors and/or the PhD Program Director directly to determine current and planned seminar topics. Students can select the topics they are interested in and may choose to enroll in more than one seminar (additional credits will apply to the 72-credit minimum). These courses provide foundational exposure to state-of-the-art research questions and methods relevant to the study of communication science and disorders.

Research Round Table (CSD 3061)

The PhD Pro-Seminar (Research Roundtable; RRT) is a required 1-credit course that all PhD students must register for and attend during the Fall and Spring for the first two years (4 semesters) of their PhD program. RRT meets for one hour each week. It features both research presentations (CSD's annual speaker series), student-led presentations, and professional-development sessions intended to foster PhD students' training and professional development.

This course provides students with opportunities to learn about content and advances outside of their own interest area(s), to observe faculty and other PhD students as they model scholarly discussion, to receive feedback on research plans or presentations from colleagues (students and faculty), and to hone their own scholarly skills, including speaking and answering questions in front of an audience and posing questions to / participating in discussions with other speakers. *Students are expected to attend and participate actively in these sessions.* During their first and second years in the PhD program, each student will be required to talk about their research plans and progress. In addition, second-year PhD students are responsible for co-organizing the RRT speaker series and co-developing professional-development sessions, together with the CSD PhD Program Director and CSD's Office of Research.

Research Design and Statistics

Students are required to take a minimum of 6 credits of research (experimental) design and statistics coursework. Students often enroll in an introductory PhD-level statistics sequence during each of their first two terms in the program, but chosen courses can and should be matched to students' background and research interests. Students may choose to take more advanced statistics or analysis coursework in consultation with their advisor (either in place of, or in addition to an introductory sequence). More advanced courses should align with the research interests of the student and could include topics such as multilevel modelling, item-response theory or psychometrics, clinical-trial or epidemiological methods, survey, or qualitative analysis methods. Courses may also be tailored to specific methods (e.g., data analysis methods for neuroimaging data).

SHRS has two graduate courses in statistics – open to CSD and RS PhD students – that will serve many students' needs for these credits and for basic statistics training. *CSD PhD students are strongly encouraged to consider these courses to satisfy their statistics requirements.* These courses are taught by Professor Lauren Terhorst (Occupational Therapy) and are:

- (1) HRS 2927: Statistical Methods for Health Science Research I, 3 credits - the first of a two-course series. Topics covered include measurement, frequency distributions, histograms, bar graphs, stem-and-leaf displays, boxplots, scatterplots, measures of central tendency, measures of variability, point estimation, interval estimation, sampling distributions, one and two-sample tests of hypotheses for means and an introduction to non-parametric tests.

(2) HRS 2928: Statistical Methods for Health Science Research II, 3 credits - the second of the two-course series. Topics covered include one and two way analysis of variance, multiple comparisons for main effects and interactions, analysis of covariance, multiple comparisons for adjusted means, correlation, simple linear regression, multiple regression, and meta-analytic methods.

There are many other possible courses offered elsewhere within Pitt that can be used to fill the Research Design and Statistics requirements. Other students, faculty, your Plan of Study Committee, and/or the PhD Program Director can all provide recommendations. Registering for additional credits (beyond the 6-credit minimum) in these areas is encouraged if it makes sense for your plan of study.

Programming and Computation

Recognizing the critical importance of using computational methods to address research question, students are required to complete a minimum of 2 credits in computer programming or computational methods courses, defined broadly. Some example courses within SHRS that meet this requirement are:

- HI 2021 Practical Statistics and Programming Using R (3 credits)
- HI 2022 Introduction to Python for Health Informatics (3 credits)

Other students, faculty, your Plan of Study Committee, and/or the PhD Program Director can all provide additional recommendations.

Lab Rotations (CSD 3902 pending new course number)

Students must complete two research lab rotations (3 credits each), designed to increase overall breadth of research experience. Students should work with their mentors and plan of study committee to determine suitable opportunities that either (i) provide exposure to different research domains and/or methodologies; or (ii) build deeper expertise within a single specialized research domain. Pitt CSD's organization of labs into research clusters may be beneficial in selecting one or more rotations (e.g., rotating with another lab in your mentor's research cluster), though you may choose to do a rotation in a different cluster or outside of Pitt CSD.

Rotations are strictly limited to a maximum of 9 hours effort per week. This is because, in most cases, students will continue to be funded to work in another lab (20 hours per week). These rotations should not be seen as an opportunity to find a different lab, but rather as an opportunity to cross-train.

Focused Electives

Students are required to complete 9 credits of focused research elective courses. These courses are in addition to courses satisfying the other requirements. These courses should be determined by the advisor and student in constructing the plan of study and discussed with the Plan of Study Committee. Elective courses are used to provide focused background knowledge and skills related to the student's area of interest or research focus. These courses are commonly taken outside CSD (for example, in Psychology, Neuroscience, Biology, the Clinical and Translational Sciences Institute, Neurobiology, Epidemiology, Economics, or Biostatistics). Students may also register for directed studies with CSD faculty to address specific topics of interest (for example, implementation science, animal models in hearing science, or laryngeal biology).

Research Practicum (CSD 3971)

Students must complete at least 6 credits (typically, two 3-credit registrations across two semesters) of research practicum, designed to provide them with focused experiences to address focused research

questions under the guidance of a faculty mentor. Students should register for a section of CSD 3971 to support work on/completion of their pre-dissertation project (see description below).

PhD Comprehensive Examination (CSD 2972)

Students should register for 3 credits of CSD 2972 during the semester in which they will complete their comprehensive examination (see [Comprehensive Examinations](#)).

Dissertation Credits (CSD 3000)

Students must register for CSD 3000 (Dissertation Credits) while they work on their prospectus, and then until they are admitted to candidacy (after they have chosen a dissertation committee, successfully defended their prospectus before the dissertation committee, and received the go-ahead from the committee to start their dissertation research).

COURSES OUTSIDE CSD

1. To identify courses outside of the CSD department, talk to fellow students and consult the CSD PhD student shared resources.
2. Students may elect to complete certificate programs outside of CSD as part of their training. Some examples include the [Center for the Neural Basis of Cognition \(CNBC\) graduate training program](#), the [School of Public Health Certificate in Health Equity](#), the [School of Medicine Hearing and Vision Sciences Graduate Certificate](#), and the [CIRTL Certification in STEM teaching](#). Note that some of these certificate programs involve a competitive application process.
3. Full-time graduate students at the University of Pittsburgh are eligible to *cross register for graduate courses* during the Fall and Spring terms, at Carnegie Mellon University (CMU), Duquesne University, the Pittsburgh Theological Seminary, and Robert Morris College, without paying tuition to the host institution. Cross-registration is limited to one course per term and follows a strict timeline. The SHRS Registrar is the contact person for the cross-registration process; for all such cross-registrations, you will need to complete and submit a Pittsburgh Consortium for Higher Education (PCHE) form. Details are available at: <https://www.registrar.pitt.edu/enrollment/pche-cross-registration>.
4. In addition, PhD (Doctor of Philosophy) students are recommended to *take a course in the History and/or Philosophy of Science*. The University of Pittsburgh has a world-class faculty and program in this area (see <https://www.hps.pitt.edu/>).

COURSE CONTRACTS

When students are enrolled in non-didactic learning experiences (e.g., directed or independent studies; research practicum credits; teaching practica; dissertation credits), they must develop a contract with their advisor that specifies the objectives for that semester and the method for evaluating achievement of those objectives (to obtain a “Satisfactory” grade for that term). The information in the contract should be specific enough to allow for objective evaluation. New contracts should be formulated each term, even for continuing experiences (e.g., research practica related to the pre-dissertation project; dissertation credits; work in related labs) and should reflect student progress through new or updated objectives. Both the student and the director of the teaching/research practicum or directed/independent study should keep a record of these contracts. Forms are available on the SHRS Student Resource Hub (<https://pitt.sharepoint.com/sites/shrsstudentresources>).

Students will typically receive a Satisfactory (S) or No Credit (NC) grade for these courses. An “Incomplete” grade can be given, but this is reserved for situations where the mentor determines that a relatively short remediation or completion of a task would be sufficient to change the grade to “Satisfactory.” In this case, the mentor and the student should formulate a contract clearly stating what needs to be achieved to change the grade to “Satisfactory.” See the SHRS book (available at <https://www.shrs.pitt.edu/student-handbooks/>) for up-to-date details on Incomplete grades and other grading policies.

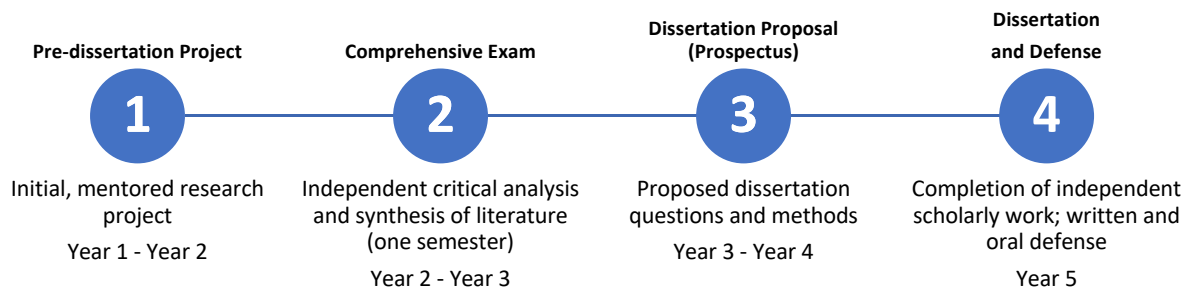
PROCEDURES FOR REQUESTING EXCEPTIONS TO CSD PHD PROGRAM REQUIREMENTS

Any request for an exception to policies and procedures laid out in this handbook must be made in writing to the PhD Program Director. The student and mentor should prepare a formal memo, to be sent from the mentor to the PhD Program Director, documenting the specific exception being requested, laying out the rationale for the exception, and describing a specific plan of action. The PhD Program Director will review the request, consulting with the student, mentor, and SHRS Associate Dean for Graduate Studies as needed. If the request is approved, the PhD Program Director will send a memo approving the request along with the original memo from the student’s mentor to CSD Academic Affairs Administrator Laura Martin, who will file both memos in the student’s advising folder.

POLICIES OF THE CSD PHD PROGRAM: MILESTONES

MILESTONE ROADMAP

Below is a schematic of the major milestones that students complete as part of the CSD PhD process. The timeline indicated would be considered typical and appropriate, though each student’s timeline to complete different milestones will vary. The individual milestones are described in further depth below.



PRE-DISSERTATION PROJECT

The pre-dissertation project is a mentored research project of limited scope, directed by the student’s research mentor. It must involve identifying and addressing a novel research question, and it should provide students with exposure to key domain-specific research methods and/or scientific literature. The project deliverable is a completed manuscript draft, which can be (but is not required to be) submitted for publication. The project *may involve new data collection or novel analysis of existing data*. The specific nature of the project will be determined by PhD students and their mentors and may vary between students. This project supports achievement of four core CSD PhD competencies: (1a) *Specialized training*; (2a) *Analytical methods*; (2b) *Research conduct*; and (4b) *Management and leadership*.

Timeline and associated coursework

Students should typically begin planning their pre-dissertation project as early as possible within their first year in the PhD program. Opportunities to discuss and develop the research approach will be available during Introduction to PhD Studies (CSD 3048) and during Research Round Table (CSD 3061). Students should complete their pre-dissertation project **within their first or second year of their program**.

Students should register for Research Practicum (CSD 3971) during each term they are working on their pre-dissertation project (typically two semesters). For each term that students register for CSD 3971, students must develop a contract with their advisor to specify objectives and evaluation methods (see [Course Contracts](#)). Students receive a Satisfactory (S) or No Credit (NC) grade in each semester. NC grades will *not count toward satisfying the pre-dissertation project coursework requirement*. Two NC grades for Research Practicum will result in re-evaluation of that student's admission to the program. In this instance, the student's mentor, Plan of Study committee, PhD program director, and the department chair will meet to consider appropriate actions.

Pre-dissertation project evaluation

The director of the pre-dissertation project (the student's mentor) will both approve the topic selected for the project and evaluate the final product. *Students may not begin comprehensive examinations until the pre-dissertation manuscript has been reviewed and approved by their mentor*. Once a student's project has been approved, they must submit a Pre-Dissertation Project Approval Form. Please contact the CSD Administrator for Academic Affairs and Admissions, Laura Martin (Imm322@pitt.edu), who will prepare a DocuSign version of this form for the student and advisor to complete and sign.

COMPREHENSIVE EXAMINATIONS (“COMPS”)

The *goal* of the PhD comprehensive exam process is to provide students a semester-long formative experience in: (a) exploring a research literature of their choosing in depth, (b) synthesizing that literature, and (c) identifying open and important theoretical and empirical questions. This process supports achievement of two CSD PhD core competencies: (1a) *Specialized training*, and (1c) *Theoretical grounding*. The deliverable emerging from the comps process should inform the student's dissertation prospectus and may also support possible grant submissions (such as an F31 proposal or other dissertation fellowships) and/or journal submissions. The written deliverable and the oral defense also provide opportunities for students to demonstrate achievement of CSD PhD core competency (2c) *Scientific communication*.

Prerequisites

Prior to beginning the comprehensive exam, students must complete: (a) all required coursework for the CSD PhD program (see Coursework Requirements) and (b) their predissertation project, as approved by their mentor (see Pre-Dissertation Project). Students may register for a maximum of three credits for additional coursework during their comps semester. This guideline should be used when students have one remaining class to complete that they want to take simultaneously in their comps semester.

Process

Overview: The PhD comps involves a semester-long independent exploration of chosen literature, framed by questions proposed by the student and reviewed and approved by the student's comps committee. The comprehensive exam results in a written deliverable, a comprehensive literature review, and culminates in an oral exam and defense of this deliverable. *Students should prepare ahead for comps, completing Steps a – d below prior to initiating the semester-long effort*.

Steps:

- a. The student identifies research areas of interest, in consultation with their mentor.

- b. Together with their mentor, the student forms a comps committee. The committee must include at least three Pitt graduate faculty (<https://www.gradstudies.pitt.edu/academics/resources-research/graduate-faculty-roster>). At least two comps committee members must have primary appointments in CSD. The student's mentor serves as the comps committee chair.
- c. Together with their mentor, the student identifies comps questions and composes a comps outline (background and motivation for questions; specific questions; associated readings).
- d. The student convenes a comps committee meeting, where the outline is presented to the comps committee and the committee provides feedback on questions and outline. The comps committee either approves the outline or requests revisions.
- e. Once the outline is approved, the student works for one semester to complete the process, registering for CSD2972 during the semester they are working on comps. They should complete both the written deliverable and the oral exam during this semester. If the student is unable to complete the process in one semester, they must take an Incomplete and register for another semester of CSD 2972. See Timeline below for more detail regarding the timeline for completion of the deliverable and the oral exam.

Written deliverable and oral exam

- a. Critical review and evaluation of the literature

Content: This written review should: synthesize existing research; evaluate its quantity and quality; identify critical gaps in knowledge; and identify key unanswered questions emerging from this review. The focus of this review should be on synthesizing the literature and developing well-motivated research questions, rather than on proposing specific experiments or methods that may answer those questions. Proposing specific methods and experimental approaches should be part of the dissertation prospectus.

Format: The format of this deliverable is flexible and will be determined by the student and the comps committee. Examples of potential formats for this deliverable include a systematic or scoping review appropriate for submission to a peer-reviewed journal (such as *American Journal of Speech-Language Pathology*, *Topics in Cognitive Science*, *Psychonomic Bulletin and Review*), an expanded version of the Background and Significance section for an F31 or other dissertation-fellowship grant (such as the SHRS Dissertation Grant), or a set of three to five 4- to 8-page essays (as in traditional PhD comprehensive exam processes, like that of the SHRS Rehabilitation Science PhD program).

Process: The writing of the literature-review deliverable should be a student-driven process, with the student working independently but able to ask questions of the mentor and committee regarding the structure and direction of the review while they are working on it. The mentor or committee members may not provide edits to the written deliverable prior to its being submitted to the committee. However, the mentor may provide feedback on whether the deliverable's writing is of suitable quality for submission to and evaluation by the committee.

- b. An oral exam, consisting of an oral presentation and defense of the written deliverable and questions from all members of the committee. The goals of this oral exam are for the student to demonstrate intellectual independence, successfully answer critical questions regarding their work, and successfully present their work orally.

Timeline and associated coursework

As noted above, students should prepare for comps ahead of the semester in which they will complete the milestone, including defining specific research questions, forming a comps committee, and obtaining approval to move forward from the comps committee.

Once approved, students should complete the comprehensive exam in one term. They must register for CSD 2972 during the semester in which they are completing comps. Students must complete a learning agreement for CSD2972 (see [Course Contracts](#)) together with their mentor (comps committee chair) and submit it to CSD Academic Administrator Laura Martin. Upon completion, the comps committee chair must award the student a grade of S (satisfactory), NC (no credit), or I (incomplete), based on whether they have successfully fulfilled the goals and objectives in the learning contract and comps process. If the student is unable to complete the process in one semester, they must receive an Incomplete grade and register for another semester of CSD 2972. Two semesters is the maximum number of semesters that students can register for comps. Failure to complete the comprehensive exam requirements by the end of the second term will be considered lack of adequate progress in the PhD Program. Students who are identified as not making adequate progress may be dismissed from the PhD program.

Procedures to Satisfy Requirements for Comprehensive Exams:

- The student should identify a planned oral exam date during the term they are working on comps. The oral defense must be scheduled no later than the day that grades are due for that term.
- Complete and submit the literature-review written deliverable to the committee. This written deliverable must be submitted at least 3 weeks before the planned oral exam date.
- The committee has 2 weeks to review and grade the written deliverable. Each committee member will submit a pass/fail grade for the deliverable to the committee chair. They must submit grades to the committee chair no later than one week before the planned oral exam date.
- If the student receives a failing grade on the written deliverable from any committee member, they do not proceed to an oral exam. They will receive a NC grade for CSD2972 and will be allowed one opportunity to rewrite the failing deliverable. The committee must provide the student with high-level feedback on the unsuccessful written deliverable prior to their starting on the revision. The student must register for another semester of CSD 2972 and complete the revision and subsequent oral defense within that semester.
- If the student receives a failing grade on the oral exam from any committee member, they will receive an NC grade for CSD2972 and will be allowed one opportunity to re-do the oral exam. The committee must provide the student with feedback on the unsuccessful oral deliverable prior to their starting on the revision. The student must register for another semester of CSD 2972 and must complete the second attempt at the oral defense within that semester.
- Following the oral exam, the student must report the results of the exam to the CSD Office of Academic Affairs using the Report on Examinations for the Doctoral Degree form. *Please contact the Administrator for Academic Affairs, Laura Martin (Imm322@pitt.edu), who will prepare a DocuSign version of this form for your comprehensive exam committee to complete and sign.*

Students complete this milestone by receiving unanimous committee approval for both the written and oral deliverables.

DISSERTATION RESEARCH

Nature and Scope of Dissertation Research

The dissertation involves theoretically motivated, original, independent research. The dissertation should be grounded in an appropriate body of literature to address questions of theoretical and/or clinical significance. It should furthermore make a novel scholarly contribution, in which specific hypotheses are tested and/or specific research questions are carefully addressed. Dissertation research should culminate in a comprehensive final document that makes a significant contribution or advancement in the relevant literature base. Successful completion of the dissertation process supports achievement of multiple CSD PhD core competencies: (1c) *Theoretical grounding*; (2a) *Analytical methods*; (2b) *Research Conduct*; and (4b) *Management and leadership*. The writing and oral defense of both the

prospectus and the dissertation provide critical opportunities for practice relevant to CSD PhD core competency (1c) *Scientific Communication*.

There is significant flexibility regarding what constitutes an appropriate topic and set of research questions, as well as what research methods will be used (e.g., whether prospective data collection or retrospective data analysis is best suited to answer the research questions; whether one, two, or more studies are required to test the hypotheses motivating the work). The student's Dissertation Committee is responsible for reviewing and approving all decisions regarding the scope and nature of the proposed dissertation work. This occurs during the Prospectus Meeting (see [Prospectus \(Dissertation Proposal\)](#)) and then through ongoing interactions between the student and committee until completion of the dissertation. If desired, the student or their advisor may consult the PhD program director for additional guidance regarding the scope or nature of the proposed work.

Dissertation Committee

Following the completion of the comprehensive exam and as students start to define the specific direction of their dissertation research, they should select a dissertation committee. In consultation with their advisor, students will select a dissertation committee of at least 4 people, including at least 1 from another department at the University of Pittsburgh outside of SHRS, or from an appropriate graduate program at another academic institution. The committee may or may not include the same faculty members as the student's plan of study or comprehensive examination committees. A majority of this committee, including the major advisor, must be full or adjunct members of the Graduate Faculty (<https://www.gradstudies.pitt.edu/academics/resources-research/graduate-faculty-roster>).

The dissertation committee will review and approve the proposed dissertation research, advise the student during the dissertation research process, approve revisions to the planned work, conduct the dissertation defense, and determine whether the dissertation meets accepted standards.

To receive approval for a dissertation committee, the student and their advisor must complete and submit a CSD Dissertation Committee Approval Form. *Please contact the Administrator for Academic Affairs, Laura Martin (Imm322@pitt.edu) to request this form.* The completed form will be sent to the CSD PhD Program Director, CSD Department Chair, and Associate Dean for Graduate Studies for review and approval. The Associate Dean for Graduate Studies will provide written notification of committee approval. The dissertation committee must be approved before students can schedule a prospectus defense. Note: if a student's area of dissertation research requires the expertise of a director (primary advisor) who has a secondary or adjunct appointment in SHRS, *the student must have a co-director whose primary appointment is in CSD.*

Prospectus (Dissertation Proposal)

Students must motivate their proposed dissertation work through a thorough review of the relevant literature. They must propose specific research methods that will address their dissertation aims, address their research questions, and/or test the hypotheses they have posed. The prospectus (dissertation proposal) is a formal process involving a written dissertation proposal and oral presentation of that proposal before the dissertation committee. The specific format of the written prospectus is left to the discretion of the dissertation committee members, but the document should (i) indicate the specific aims of the proposed research; (ii) define hypotheses and expected outcomes; (iii) explain the significance of the work in the context of the previous literature; (iv) describe the strategy, methods, and analysis procedures that will be used to accomplish the specific aims of this research; (v) provide preliminary data to support the proposal; and (vi) discuss potential pitfalls and alternative strategies. In many cases, it may be appropriate to format the prospectus in the style of an F31 or other predoctoral research proposal.

Procedures to Satisfy Requirements for Prospectus:

- Students must prepare a written dissertation proposal, which is submitted to all members of the dissertation committee. Students should discuss the appropriate scope of the dissertation research and any other details about the proposal with their mentors.
- Students should schedule a prospectus meeting, during which they will orally present the dissertation proposal and take questions and feedback from committee members.
- Students should ensure that committee members have sufficient time to read the written proposal prior to the prospectus meeting.
- Students should contact Laura Martin to request two sets of forms:
 1. The Report on Examinations for the Doctoral Degree, indicating whether the student has passed or failed the defense. It will be shared with the committee following the defense.
 2. Section 1 of the Middle States Outcomes form (Prospectus). The Middle States form lists the minimal criteria by which your performance will be evaluated by your committee. It must be shared with dissertation committee members before the defense, so that all committee members are aware of the criteria used to evaluate the CSD PhD dissertation prospectus.
- Following the meeting, the Academic Affairs Administrator will generate DocuSign versions of both these forms for your dissertation committee to sign.
- The dissertation committee must unanimously approve the proposed topic and research plan before the student can proceed with the proposed research. They may require revisions before approving the proposed research. If the research will involve human subjects or animals, it must be approved by the appropriate institutional review board(s) (IRB[s]) or institutional animal care and use committee(s) (IACUC[s]) before it can be carried out.

Per University guidelines, approval of the dissertation proposal does not imply either the acceptance of a dissertation that follows this proposal, or the restriction of the dissertation to this original proposal. The final dissertation project may differ from the work laid out in the prospectus, pending approval by the dissertation committee.

Dissertation Authorship Agreement Form

According to SHRS policy, all dissertation proposal defense approval forms require an authorship agreement component. This form is intended to ensure that the student and her/his dissertation committee members have discussed and agree on who will receive author credit on any publications resulting for the dissertation. Students and committee members may wish to consult Pitt's Office of Research Protection guidelines on authorship (<https://www.orp.pitt.edu/resources/authorship-guidelines>). *Please contact the CSD Administrator for Academic Affairs and Admissions, Laura Martin (Imm322@pitt.edu) for a copy of this form. Please be advised that dissertation proposal approval forms that do not include the authorship agreement will not be accepted, and a dissertation proposal will not be considered approved until the authorship agreement has been received.*

Admission to Candidacy for the Degree of Doctor of Philosophy

Once a student's dissertation prospectus has been approved, the student is eligible to be admitted to candidacy for the PhD degree. Admission to candidacy constitutes a promotion to the most advanced stage of graduate study and provides formal approval to devote essentially exclusive attention to the research and the writing of the dissertation. *After you pass your prospectus defense, please contact the CSD Administrator for Academic Affairs and Admissions, Laura Martin (Imm322@pitt.edu), to request the CSD PhD Admission to Candidacy form. She will generate a DocuSign version of this form for you to complete.* It will then be submitted to the CSD Department Chair and Associate Dean of Graduate Studies for approval. You will receive written notification from the Dean of your admission to candidacy.

Registering for Dissertation Credits and for “Dissertation Only” Status

While students work on the prospectus, and until they are admitted to candidacy, they should register for CSD 3000 (dissertation credits). After students have been admitted to candidacy and while working on dissertation research, they may register for full-time dissertation study (FTDI 0000). In this status, students will not be charged the usual (per credit) tuition rate and will only pay a flat fee for tuition each Fall and Spring term. No letter grade or credits are associated with this status. Students must consult with the SHRS registrar for permission to register for full-time dissertation study. *Note that students must remain in active status* (see below) while working on the dissertation and must create a contract with the research mentor each term (see Course Contracts).

Dissertation Format

There is significant flexibility in the format for dissertations. Here, “format” refers to the structure of the document rather than specific formatting guidelines such as margins, font sizes, etc. (see [Electronic Theses and Dissertations \(ETD\)](#)). The traditional format used by CSD faculty and PhD students commonly involves a single long Introduction chapter (discussing background and significance; presenting a review of the relevant literature; and describing the set of research questions and hypotheses), a combined Methods chapter (in which all research methods are presented together, in a single chapter), a combined Results chapter (in which all results, across different methods, are presented together), and a combined Discussion chapter. An alternative (optional) format, already approved at the SHRS level and commonly practiced elsewhere, involves a 2- or 3-paper format. The structure for such a dissertation format is, broadly, as follows:

- **Chapter 1:** Aims of the dissertation (a brief, high-level overview of the domain of interest and the key questions motivating the proposed work).
- **Chapter 2:** Theoretical chapter. Provides a literature review that is sufficiently comprehensive to motivate and define a set of specific research questions.
- **Chapters 3-4/5:** Individual study chapters. Individual studies, each formatted for submission to a peer-reviewed journal, with detailed Introductions, Methods, and Results, and study-specific Discussion and Conclusions.
- **Chapter 6: General discussion.** Presents a synthesis of findings across studies, identifying substantive conclusions and directions for future work.

If approved by the student’s dissertation committee, one or more chapters of the dissertation may be work completed prior to the Prospectus (but completed while a PhD student), *provided that work is clearly aligned with the dissertation topic*. However, at least one chapter **must** reflect work that is novel to the dissertation.

Electronic Theses and Dissertations (ETD)

Dissertations are submitted in electronic format. You will find information regarding Electronic Theses and Dissertations (ETD) Formats and Guidelines, including links to ETD templates, on the University ETD website (<https://etd.pitt.edu/>) and at the SHRS Student Resources Hub (<https://pitt.sharepoint.com/sites/shrsstudentresources>; see “Master’s Thesis & Doctoral Dissertation” link). Please plan early when writing because the ETD template uses a very specific format and migrating between formats can be time consuming. The SHRS Student Resources Hub also contains specific deadlines for scheduling the oral defense and submitting the ETD in order to graduate in each term.

The University Library System has migrated to D-Scholarship@Pitt (<http://d-scholarship.pitt.edu/>) for electronic theses and dissertations. This system is easy to use and has many features to improve access, sharing, and visibility of Pitt ETDs.

When you are ready to apply for graduation, email Assistant Dean of Graduate Studies, Courtney Fleck, Courtney.fleck@pitt.edu, to obtain an electronic ETD packet. *Follow the instructions in that packet to the letter.*

Dissertation Defense / Final Oral Examination

The final oral examination in defense of the doctoral dissertation is conducted by the dissertation committee and need not be confined strictly to materials in and related to the dissertation. Anyone within or outside the University may attend and participate in selected portions of the examination. The details of the examination must be published for the broader university community well in advance of the examination.

The dissertation defense is directed by the moderator, a graduate faculty member who is not on the committee. Please note that the oral defense date will not be approved without identification of the moderator (an individual who will run the defense meeting) and without the moderator's agreement to serve in that capacity. Please see the description of the moderator, their responsibilities, and the conduct of dissertation defenses in SHRS, which can be found in the PhD Student Resources section at <https://pitt.sharepoint.com/sites/shrsstudentresources>.

The format of the Dissertation Defense / Final Oral Examination in SHRS follows a specific, consistent format. It consists of several stages:

1. Formal presentation by the candidate (45 minutes), followed by questions from the general audience (students, practitioners, non-graduate faculty)
2. Questions from the SHRS and University Graduate Faculty (non-committee members)
3. Questions from the Dissertation Committee
4. Deliberations and Recommendations

At least one month in advance of your scheduled dissertation defense, students must do the following (up to date information can be found at <https://pitt.sharepoint.com/sites/shrsstudentresources>):

1. Reserve a room for the oral defense and take steps to set up a remote attendance option using a Pitt-supported Zoom or Teams link
2. Create a dissertation defense announcement using this Qualtrics survey (https://pitt.co1.qualtrics.com/jfe/form/SV_8tUHL1b5auxYxNQ); submitting this survey notifies the Assistant Dean of Graduate Studies, Courtney Fleck, of the dissertation defense.
3. Email the CSD Administrator of Academic Affairs and Admissions, Laura Martin, with the defense date and details (LMM322@pitt.edu)

Students are also responsible for: (a) making sure that their committee members have sufficient time to read the written proposal prior to the meeting, and (b) requesting three sets of forms from the CSD Administrator of Academic Affairs and Admissions, Laura Martin (LMM322@pitt.edu).

1. The Report on Examinations for the Doctoral Degree, indicating whether the student has passed or failed the dissertation defense. It will be shared with the committee following the defense.
2. Section 2 of the Middle States Outcomes form (Dissertation). The Middle States form lists the minimal criteria by which your performance will be evaluated by your committee. *It must be shared with dissertation committee members before the defense*, so that all committee members are aware of the criteria used to evaluate CSD PhD dissertation prospectuses.
3. The ETD Approval Form, indicating that the dissertation committee has approved the final version of the dissertation document (or cedes final approval of the document to the dissertation committee chair).

Following the oral defense, the CSD Administrator of Academic Affairs and Admissions will generate DocuSign versions of these forms for all members of the dissertation committee to sign.

Only the members of the dissertation committee and the moderator may be present during the final deliberations and only the dissertation committee may vote on passing of the candidate. If the decision of the committee is not unanimous, the case is referred to SHRS Associate Dean for Graduate Studies for resolution.

ADDITIONAL SHRS AND UNIVERSITY POLICIES

All CSD PhD students should further familiarize themselves with relevant policies contained in the SHRS Graduate Student Handbook (found at <https://www.shrs.pitt.edu/student-handbooks/>). This handbook applies across all graduate programs, and contains up-to-date guidelines on topics such as Enrollment and Registration, Graduation Requirements, Financial Information, Tuition and Residency, Grading Policies, Impaired Student Policies, Leaves of Absences, Student Wellness and Support Resources, and more.

Other university-level policies for graduate students: <https://www.gradstudies.pitt.edu/about/student-policies-and-regulations>.

OTHER REQUIREMENTS RELATED TO THE CONDUCT OF RESEARCH

Students should work with their advisors to understand which of these requirements / trainings are applicable and how best to complete necessary training, IRB and/or IACUC protocol submissions, etc.

RESEARCH TRAINING

Anyone involved in conducting research at the University of Pittsburgh must complete on-line training in the Responsible Conduct of Research (RCR), Research Security, and Conflicts of Interest. Each of these training modules is available through the CITI program (<https://www.citi.pitt.edu/>). There are additional requirements that depend on the type of research conducted. The Pitt Office of Research Protections describes these specific requirements in the Research Training Hub (<https://www.orp.pitt.edu/research-training-hub>).

IRB APPROVAL FOR RESEARCH INVOLVING HUMAN SUBJECTS

Before any research can be conducted with human subjects, Institutional Review Board (IRB) approval is necessary. IRBs are federally-mandated bodies that function to protect the rights and welfare of human research participants. Federal policy defines “research” as “a systematic investigation, including research development, testing, and evaluation, designed to develop or to contribute to generalizable knowledge.” At Pitt, the Human Research Protection Office (HRPO; <https://www.hrpo.pitt.edu>) is responsible for both IRB oversight and compliance, as well as education in the ethical conduct of research. The Pitt IRB uses an online system for preparing, submitting, and reviewing IRB research applications (PittPRO; <https://www.pittpro.pitt.edu/>).

Students are encouraged to allow plenty of time to prepare materials for IRB submission and review. IRB regulations and requirements are quite precise and thoroughly detailed in documents on the Human Research Protection Office (HRPO) website (<https://www.hrpo.pitt.edu/policies-and-procedures>; <https://www.hrpo.pitt.edu/guidance-forms>). When preparing an IRB submission, these materials should

be read carefully. The HRPO also sponsors periodic “Ask the IRB” sessions to help investigators navigate the process, and HRPO staff typically are easily available for specific questions, as well.

Pre-IRB submission: SHRS Scientific Review Approval

Before they can be submitted for IRB approval, all research proposals that involve human subjects are required to be reviewed by “an appropriate and formally constituted scientific review committee” (Guidelines for Structure and Function of Scientific Review Committees, November, 1998). Prior scientific review can be accomplished by any of a number of units throughout the university, or by federal peer-review panels in the case of a federally-funded grant application. In SHRS, Scientific Review clearance is handled within each department. After the investigator uploads the IRB materials into PittPRO, the appropriate departmental reviewer is notified to initiate the review. (Note: your research advisor will be notified to approve your IRB documents in PittPRO, before notice is sent to the scientific reviewer. It may be wise to alert your advisor to this pre-review requirement, so that your proposal can be processed in a timely manner).

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC)

Research that involves laboratory animals must be reviewed by the Institutional Animal Care and Use Committee (IACUC). Detailed information can be found at <https://www.iacuc.pitt.edu/>.

RESEARCH DATA MANAGEMENT

The Pitt Office of Research Protections provides guidance on Data Governance, which can be found at <https://www.orp.pitt.edu/resources/data-governance>. Briefly, research data belong to the University of Pittsburgh, which can be held accountable for the integrity of the data even after the researchers who generated the data have left the University. Although the primary data should remain in the laboratory where it originated (and hence at the University), consistent with the precepts of academic freedom and intellectual integrity an investigator no longer in the laboratory may retain copies of the research data and certain materials created by him/her in the course of the research, provided an appropriate agreement has been executed through the Office of Sponsored Programs (<https://osp.pitt.edu>).

The University of Pittsburgh, as the grantee for sponsored research, has an institutional responsibility to retain research records for a minimum of seven years following the conclusion of a grant. As the policy states, the research records should remain in the laboratory where they were created. If that is not possible, the research records should be retained in the department or institute administrative office.

Please keep in mind that failure to accurately record and retain research data may be considered an act of research impropriety which falls short of the legal definition of research misconduct. However, such actions are nonetheless regarded very seriously by the University and the federal Office of Research Integrity.

RESEARCH PROCEDURES FOR STUDENTS GRADUATING FROM PITT

Graduating CSD PhD students are required to complete the checklist for investigators leaving the University outlined here: <https://www.orp.pitt.edu/resources/checklist-investigators-leaving-university>

OTHER RESOURCES FOR THE CSD PHD PROGRAM

FUNDING INFORMATION AND OPPORTUNITIES

Financial assistance for PhD students is available from a variety of sources, including grant-funded graduate-student researcher (GSR) positions, PhD traineeships (affiliated with federally-sponsored individual or institutional training grants), and teaching assistantships (TAs). Students supported on GSRs or TAs are required to work not more than, on average, 20 hours per week in the roles and responsibilities outlined by that funding source for which the student is not receiving academic credit. Students in these roles are typically compensated with either or both tuition remission and a stipend. It is important understand the separation between the activities that support a student's funding and the academic requirements of the PhD program, which are each evaluated separately and annually.

Students may apply for fellowships to support their PhD studies. Fellowship opportunities include NIH-sponsored F31 National Research Service Awards (<https://grants.nih.gov/funding/activity-codes/F31>), NSF-sponsored Graduate Research Fellowships (<https://www.nsf.gov/funding/initiatives/grfp>), CAPCSD scholarships (<https://www.capcsd.org/scholarships/>) or ASH Foundation scholarships (<https://www.ashfoundation.org/apply/>). To find information about scholarship opportunities specific to SHRS students, see the SHRS Research page (<https://www.shrs.pitt.edu/research/>).

There are a large number of institutional training grants at the University of Pittsburgh (see <https://www.nihtraininggrants.pitt.edu/>). Some CSD PhD students have received funding through such training programs.

Students should speak with their advisor(s), the CSD PhD Program Director, and the CSD Office of Research (csdresearch@pitt.edu) about specific funding opportunities and/or to discuss plans for your funding support during your PhD program.

CSD PHD STUDENT SLACK AND RESOURCES FOLDER

The CSD PhD student representatives maintain an active Slack workspace and a shared resources folder (currently hosted on Pitt OneDrive). Ask a current PhD student about access to these resources. The shared resources folder contains a *wealth* of valuable information, including sample plans of study, annual reports, statistical resources, job application materials, even suggested sites and neighborhoods to visit. These uniquely valuable materials are frequently updated and available to all CSD PhD students.

CSD OFFICE OF RESEARCH

Pitt CSD's Office of Research works closely with PhD students to support their research, including assisting with GSR or other appointments and providing pre-award assistance for grant proposals. This office is led by CSD Vice Chair for Research (Dr. Hari Bharadwaj) and includes the Director of Research Analytics, Compliance, and Strategy (Dr. Lea Sayce) and the Director of Research Enterprise and Development (Dr. Ashley Parker). The CSD Office of Research asks that email requests are directed to csdresearch@pitt.edu, which forwards to the full team. The Office of Research works closely with the Director of Research Training (Dr. Jason Bohland) to coordinate activities related to PhD training.

Students can work with the CSD Office of Research to request statistical consulting for grant proposals or student-led projects (from Dr. Mark Zhang in Pitt CSD and/or the SHRS Data Center, depending on specific needs).

SERVICE AND LEADERSHIP OPPORTUNITIES FOR CSD PHD STUDENTS

CSD PhD core competencies 4a and 4b are *Professionalism and service* and *Management and leadership*. There are a number of opportunities for students to obtain important service and leadership experience during the CSD PhD program. Several of these are listed below.

RRT PROGRAMMING AND ORGANIZING (2ND YEAR PHD STUDENTS)

Each academic year, the PhD Program Director and the 2nd year PhD student cohort organize and plan the year's Research Round Table, the research and professional-development series (CSD 3061). During the summer following their first year, the rising 2nd year PhD students collaborate with the PhD Program Director and the Office of Research to select speakers to invite and professional-development activities to host. The students are responsible for inviting the speakers, introducing them at RRT, and coordinating with the PhD Program Director.

PHD STUDENT REPRESENTATIVES

Two PhD students are chosen to serve as representatives to the CSD Faculty. These representatives are appointed for two-year terms, with the terms of the two representatives being staggered when possible. Their responsibilities include attending monthly faculty and staff meetings, meeting regularly with the PhD Program Director and members of the Office of Research, and conveying information and concerns between PhD students and the PhD Program Director. Serving as a representative is a fantastic opportunity to gain service and leadership experience, improve the lives of CSD PhD students, and get involved in the life of the department. Students who are interested in being PhD student representatives should contact the PhD Program Director.

SHRS STUDENT ADVISORY BOARD

The Student Advisory Board (<https://www.shrs.pitt.edu/student-organizations/sab/>) is an organization to represent all SHRS students, including PhD students. This organization provides a bridge between students and school leadership and serves to support the student community. There are opportunities for CSD PhD students to participate in this mission and/or to serve in leadership positions within the group.

PITT CSD PODCAST

The Pitt CSD Podcast (<https://csdpodcast.pitt.edu/>) is a student-run science communication initiative designed to educate clinicians and trainees in CSD (Series 1) and to orient listeners from every walk of life to the rich tapestry of human communication experiences (Series 2). It engages leading experts (drawn from Pitt CSD faculty and other members of the CSD community) in conversations relevant to the field. PhD students can help lead the podcast and coordinate the efforts of a team of undergraduate and MA-SLP/AuD students who support the podcast (editing and posting the recorded conversations). *This role is a fantastic opportunity for PhD students to hone their skills in science communication, interact with leading researchers in the field, and be the face of Pitt CSD for a national listening audience.* Students who are interested in being Pitt CSD Podcast hosts should contact the Pitt CSD Podcast faculty sponsor, Dr. Leah Helou (lbh7@pitt.edu).