

GRADUATE STUDENT GUIDELINES

DEPARTMENT OF PSYCHOLOGY
THE PENNSYLVANIA STATE UNIVERSITY

UPDATED FOR AY 2023-24

This document describes the primary policies and procedures of the Penn State Psychology Doctoral Program, including some associated Graduate School Policies. It is intended as a companion to the Graduate School Bulletin.

Please note that policies do not exist for all aspects of the program and each training area has policies that go beyond what is required by the department (see Appendix A).

These Guidelines were originally developed by Hoben Thomas in 1983. Revisions were made by subsequent Directors of Graduate Studies, including Keith Crnic (1990-1997), Pamela Cole (1997-2000), David Day (2001-2006), Cathleen Moore (2006-2007), Susan Mohammed (2007- 2014), Kristin Buss (2014 - 2016), Alicia Grandey (2016 - 2020), and Amy Marshall (2020 - present).

TABLE OF CONTENTS

| | |
|---|----|
| PROGRAM REQUIREMENTS | 4 |
| A. COURSEWORK | 4 |
| 1. BASICS: ENGLISH LANGUAGE AND ETHICS | 4 |
| 2. STATISTICS | 5 |
| 3. MAJOR | 5 |
| 4. BREADTH | 6 |
| B. FOUNDATIONAL RESEARCH | 7 |
| 1. MASTER'S THESIS OR APPROVED ALTERNATIVE | 7 |
| 2. SECOND RESEARCH ADVISOR / MINOR PROJECT | 9 |
| C. QUALIFYING EXAM | 9 |
| D. DOCTORAL COMMITTEE | 10 |
| E. COMPREHENSIVE EXAMINATION | 11 |
| F. DOCTORAL DISSERTATION | 12 |
| 1. DISSERTATION PROPOSAL | 13 |
| 2. DISSERTATION DEFENSE | 13 |
| G. RESIDENCE REQUIREMENT | 14 |
| DEGREE REQUIREMENTS TIMELINE | 15 |
| GRADUATE SCHOOL AND DEPARTMENT TIMELY PROGRESS EXPECTATIONS | 16 |
| TIMELY PROGRESS: GOOD VS. POOR STANDING | 17 |
| GRADUATE STUDENT ANNUAL FEEDBACK REPORTS | 18 |
| GRADUATE STUDENT FINANCIAL SUPPORT | 19 |
| 1. TEACHING ASSISTANTSHIPS | 19 |
| 2. INDEPENDENT INSTRUCTION | 21 |
| 3. EXTERNAL FELLOWSHIPS AND AWARDS | 22 |
| 4. OTHER FORMS OF ASSISTANTSHIPS | 23 |
| OTHER SOURCES OF FINANCIAL SUPPORT | 23 |
| 1. SUPPLEMENTAL INCOME AND "OVERLOAD" POLICY | 23 |
| 2. SUMMER FUNDING | 24 |
| 3. DEPARTMENTAL FUNDS FOR RESEARCH AND TRAVEL | 24 |
| 4. AWARDS | 25 |
| ADDITIONAL RESOURCES | 26 |
| 1. DIVERSITY AND INCLUSION | 26 |
| 2. HEALTH AND WELLNESS | 27 |
| 3. TECHNOLOGY AND PERFORMANCE | 27 |
| 4. FINANCIAL LITERACY | 28 |
| 5. MENTORING BEST PRACTICES AND OPPORTUNITIES | 28 |
| APPENDIX A: MAJOR AREA REQUIREMENTS | 29 |
| 1. CLINICAL AREA | 29 |
| 2. COGNITIVE AREA | 32 |
| 3. DEVELOPMENTAL AREA | 36 |
| 4. I/O AREA | 44 |
| 5. SOCIAL AREA | 48 |
| APPENDIX B: SPECIALIZATIONS & DUAL-TITLE PROGRAMS | 51 |
| 1. SPECIALIZATION IN COGNITIVE AND AFFECTIVE NEUROSCIENCE (SCAN) | 51 |
| 2. DUAL-TITLE PHD IN WOMEN'S, GENDER, AND SEXUALITY STUDIES (WGSS) & PSYCHOLOGY | 52 |
| 3. DUAL-TITLE PHD IN LANGUAGE SCIENCE & PSYCHOLOGY | 54 |

| | |
|--|----|
| 4. DUAL-TITLE PHD in SOCIAL BEHAVIORAL NEUROSCIENCE (SBN) & PSYCHOLOGY | 56 |
| 5. DUAL-TITLE PHD IN SOCIAL DATA ANALYTICS (SODA) & PSYCHOLOGY | 61 |

PROGRAM REQUIREMENTS

It is your responsibility to know these requirements. Although most faculty members have a strong working knowledge of these program requirements, it is expected that each student will be responsible for the departmental requirements presented in the *Guidelines* and the Graduate School requirements as presented in the *Graduate Degree Programs Bulletin* (<http://bulletins.psu.edu/graduate/degree/requirements/degreeReq1>). If something is unclear to you, ask your Area Coordinator, the Director of Graduate Studies (DGS), and/or Graduate Staff Assistant (Sherri).

Note that these are departmental requirements. Each training area (i.e., adult/child clinical, cognitive, developmental, I/O, and social) has its own additional requirements, to be found in Appendix A of these Guidelines or from your area coordinator.

OVERVIEW OF PROGRAM REQUIREMENTS

- A. COURSEWORK
 - 1. Basics: English language and ethics
 - 2. Statistics
 - 3. Major area (see also area guidelines)
 - 4. Breadth
- B. FOUNDATIONAL RESEARCH
 - 1. Master's thesis or approved alternative
 - 2. Second research advisor/minor project
- C. QUALIFYING EXAM
- D. DOCTORAL COMMITTEE
- E. COMPREHENSIVE EXAM
- F. DISSERTATION
 - 1. Proposal
 - 2. Dissertation defense
- G. RESIDENCE REQUIREMENT

A. COURSEWORK

Departmental coursework requirements that apply to all graduate students are described below. Each training area differs in the expected coursework; see area-specific guidelines.

1. BASICS: ENGLISH LANGUAGE AND ETHICS

In your orientation class your first year (PSY501) you will demonstrate English proficiency and begin ethics training. These satisfy requirements of the Graduate School.

English language. English proficiency is necessary for many domains of training, including participating in seminar discussions, teaching roles, and communicating research findings.

During the first semester of the first year in the graduate program, each student's writing and speaking skills will be evaluated during PSY 501. The oral and written portions of the requirements are graded as either pass or fail by the instructor and another faculty member (if deemed necessary). If the paper or oral presentation is judged to be unacceptable, the student will be asked to rewrite and/or re-present it and/or take other recommended remedial actions (e.g., enroll in a technical writing course).

Scholarship and Research Integrity (SARI) ethics training. All graduate students at Penn State are required to complete training in the responsible conduct of research and scholarship. The SARI (Scholarship and Research Integrity) program has two parts:

- a. *Human Subjects Ethical Research Training.* In order to conduct any research while at PSU, students must complete an online training in the responsible conduct of research provided by the Collaborative Institutional Training Initiative (CITI). The CITI program can be accessed through the SARI resource portal: <https://www.research.psu.edu/training/sari> or directly at <http://citi.psu.edu/>. Students must complete the course during PSY 501.
- b. *Academic and Research Integrity Training.* Students must engage in an additional 5 hours of discussion-based ethics training. Two hours of discussion will occur during PSY 501. The remaining three hours will occur in different semesters prior to the end of the 2nd year. Students will be notified via e-mail as to when these workshops will be offered.

If you miss any of these departmental SARI ethics trainings you will need to make up the training in other ways that you will be responsible for organizing and gaining approval from the DGS.

2. STATISTICS

Students must complete a two-semester statistics sequence (usually in the first year). The Department of Psychology offers a statistics course sequence (PSY 507 and PSY 508) that is intended for first year graduate students and fulfills the statistics requirement if a grade of B- or higher is obtained. If a student receives a C in one of these two courses, the student will be required to re-take the same course or its equivalent to fulfill this requirement.

Although it is expected that all graduate students will take the department's statistics sequence, it may not be appropriate for all students (depending upon their background and/or previous graduate work). In such cases, other courses may be taken to meet this requirement with approval from the student's advisor and the Director of Graduate Studies.

3. MAJOR (SEE APPENDIX A/AREA HANDBOOK)

The only departmental requirement for the major area coursework is that 18 credits must be earned in the student's major area, with a grade of B or higher. To promote flexibility of the

graduate program, the specification of relevant major courses is a matter generally left to the student, the student's advisor, and the area faculty. Please see the Appendix A/area handbook.

4. BREADTH

The educational goal of the breadth requirement is to assure achievement of breadth of knowledge of psychology outside the area of major specialization. This requirement ensures that students are broadly educated, meeting the requirements for compliance with the National Register of Health Service Providers in Psychology.

To meet this requirement, a minimum of 12 credits must be earned outside the major area. No more than 6 of these credits can be independent study. A grade of B or better must be obtained in each course selected to fulfill the requirement.

Students who completed graduate-level work at another university may transfer coursework to receive credit for fulfilling this requirements. Your advisor, area faculty, and the Graduate Staff Assistant should be consulted in order to determine the merits of courses taken elsewhere and whether such transferred courses are appropriate for receiving credit.

The following are four options for fulfilling the breadth requirement (though training areas may provide more specific breadth options; see Appendix A or area guidelines).

Option A (Required for Clinical students). The APA requires that students in clinical psychology demonstrate breadth of discipline specific knowledge (DSK) through graduate courses in five bases of behavior (biological, cognitive, affective, social, and lifespan human development). See Clinical Psychology Program Manual of Policies and Procedures for more detailed information on how to meet these requirements. Additionally, students in the child-track must complete three substantive developmental courses (see Appendix A for details) and conduct at least one developmentally framed study during graduate training. Students in the adult-track must complete an additional research project or a substantive paper (beyond other required research projects), with the written product evaluated as part of the student's comprehensive examination.

Option B (Minor Specialization). Students who are interested in developing a specialization in an area outside the major may take courses organized around a particular expertise. There are three paths to choose from for pursuing a minor specialization:

- **Informal Minor Specialization.** The student creates a unique minor experience by completing 12 credits of focused study (typically 6 credits of coursework plus 6 credits of independent study). This focused study is completed under the supervision of a faculty adviser who should be chosen in consultation with the student's primary research advisor. This path is designed to yield a deliverable outcome or project (e.g., empirical study, theoretical development paper, literature review). If this option is chosen, the project must be defended as part of the comprehensive exam.

- **Formal Minor Specialization.** Students may elect to complete a "formal" doctoral minor in a specific graduate program outside of psychology. Official doctoral minors appear on students' degree audits and generally require a minimum of 15 credits with at least six of those credits at the 500-level or higher. However, specific requirements differ across departments. Students must complete the specific requirements for their selected minor.
- **SCAN Minor Specialization.** Students may fulfill the breadth requirement by completing the requirements for SCAN (Specialization in Cognitive Affective Neuroscience); see Appendix B.

Option C (General). To develop breadth within psychology, students may choose to take 12 credits outside their major area, including one course in each of the Department's other program areas. For example, an I/O student would fulfill this requirement by taking a graduate course in social, cognitive, clinical, and developmental.

Option D (Dual-Title). Completion of a dual-title degree program typically also fulfills the breadth requirement. See Appendix B for dual-title information and requirements.

B. FOUNDATIONAL RESEARCH

Research training is central to the educational mission of the graduate program in Psychology. All students are expected to be engaged in research continuously over their graduate careers, regardless of career goals or the major area of study.

1. MASTER'S THESIS OR APPROVED ALTERNATIVE

The department requires that each graduate student complete a Master's thesis project or an "approved alternative." The approved alternative option reflects the department's commitment to flexibility in each student's program. The department does not specify a set of criteria that establishes what the approved alternative must be, so be sure to see your area handbook for area-specific guidelines. The nature of the approved alternative is determined with one's advisor and committee (relative to area guidelines), ensuring that it will help demonstrate the student's competence in scientific theories, methods, ethics, and written and oral communication.

Steps for completing the master's thesis project or approved alternative:

1. Form a committee comprised of three faculty members responsible for evaluating the quality of the project. This should include 1) a tenured or tenure-track faculty member within the student's training area who will serve as the committee chair, 2) a faculty member from the student's major area in psychology, and 3) a faculty member from an area outside the major (within or outside of Psychology) who can provide breadth of perspective on the project. Additional faculty members may be included, if desired. If the project is

mentored by a faculty member not holding a tenured or tenure-track appointment, this person may serve as co-chair. Students should inform the Graduate Staff Assistant when the committee is formed.

2. Propose the Master's thesis project or otherwise obtain pre-approval of the project in consultation with the formed committee. This pre-approval is meant to identify a reasonable project and its scope, which can be completed by the end of the student's second year in the program. See Appendix A/area handbook for area-specific requirements for the pre-approval process. Students should inform the Graduate Staff Assistant when the pre-approval is obtained.
3. Create written document describing the project in accordance with the proposal/pre-approval.
4. Orally defend the project. See Appendix A/area handbook for area-specific requirements for the defense. Students should inform the Graduate Staff Assistant three weeks prior to the scheduled date of the defense (this deadline is more flexible than that for other degree requirements, so let Sherri know if the defense needs to be scheduled more last-minute.)

Getting a Master's degree:

Each student must complete a research project (Master's thesis or approved alternative), but obtaining a Master's *degree* while in our doctoral program is not required by the department. However, your area may require it (see Appendix A/area handbook) or you may personally choose to complete the requirements for the Master's degree.

If you choose to complete the Master's degree, your Master's thesis must be written in accordance with the Graduate School's requirements which are detailed in the *Thesis Guide* available online at the Graduate School website <http://gradschool.psu.edu/current-students/etd/>. Additionally, you must complete 30 graduate credits, including at least 18 credits in the 500 and 600 level series (6 credits of which must be PSY 600 or 610) by the time you graduate with the master's degree.

Entering the program with a Master's degree/thesis or research equivalent

If you enter the program with a completed Master's thesis or a similar research equivalent such as a first-authored journal article, you can apply to have the above master's thesis or approved alternative requirements waived. The prior work cannot be used as a Penn State Master's Degree, but it can fulfill the departmental requirement. To do so, you must:

1. Form a committee of three faculty members (as described above) to read and evaluate your previous work. Their goal will be to determine whether the work would be acceptable as a Master's thesis or equivalent for this department.
2. Orally defend the work to the committee. Your goal will be to demonstrate that you completed the work (mostly) independently and can discuss it in a scholarly manner.
3. The committee will complete a form (available from the Graduate Staff Assistant) indicating their decision to (a) accept the previous work as meeting our requirements for an acceptable thesis or research equivalent, (b) accept *with revisions* the previous work as meeting our requirements, or (c) require that you complete an acceptable thesis or research equivalent as part of the graduate program at Penn State.

2. SECOND RESEARCH ADVISOR / MINOR PROJECT

To prevent narrowness of research training and to provide breadth of mentorship experiences, graduate students are required to conduct research with a second member of the faculty for at least two semesters. The second faculty member must focus on a sufficiently divergent research topic such that the student is exposed to differing research content and methods. The second faculty member can be within or outside the department. This requirement can be part of the Minor Specialization (Option B in the Breadth requirements above).

Although this requirement must be met prior to taking the comprehensive examination in some training areas, for other areas, this requirement can be met at any time during the student's graduate career. See Appendix A/area handbook for specifics.

C. QUALIFYING EXAM

According to the Graduate School, a graduate student is not a *doctoral* student until the student has been evaluated for doctoral work, called the Qualification Exam. In Psychology, we evaluate students based on their performance thus far in the program. Therefore, students do not need to complete any additional work to “take” this exam.

To be considered by the faculty for Qualification for doctoral work students must:

1. Complete a written research product. Typically, this is the proposal of the Master's thesis or approved alternative. Committee review of this product must occur prior to the date of the qualifying exam (i.e., December of 2nd year).
2. Demonstrate promise for doctoral-level work through engagement in research, classwork, and related activities (e.g., clinical practice).
3. Complete a minimum of 18 credits of graduate coursework.
4. Have a letter from the advisor and area coordinator on file documenting the student's progress toward degree requirements.

At the end of the fall semester of the student's second year, area faculty will make a recommendation to the department after consideration of each student's progress.

The faculty can make the following recommendations:

1. The student passes the Qualifying Exam. If this recommendation is made, representing that all four criteria above have been met, paperwork will be submitted to the Graduate School by the Graduate Staff Assistant and the student will be considered a doctoral candidate in psychology.
2. The student does not pass the Qualifying Exam. If this recommendation is made, the faculty will decide whether (1) the student should retake the qualifying exam (i.e., be re-evaluated), typically at the end of the Spring semester of their 2nd year, or (2) the student is deemed not qualified for doctoral work. If the student is deemed not qualified for

doctoral work, the committee may decide to allow the student to continue in the program to complete in a (terminal) Master's degree.

D. DOCTORAL COMMITTEE

Doctoral Committee

A doctoral committee is comprised of faculty members who will support you through the remainder of your graduate career, including during the comprehensive exam and dissertation.

Timing of Committee Formation: Students must form a Doctoral Committee within one year of passing the Qualifying Exam. This means you should form your doctoral committee before December of your 3rd year.

Steps to Form the Committee:

1. Consult with your advisor.
2. Obtain each faculty member's agreement to serve on the committee.
3. Submit a copy of your completed Degree Checklist and a letter (or email) requesting formation of the doctoral committee to the Graduate Staff Assistant. The Degree Checklist should be initialed by your advisor, verifying that the necessary requirements have been met. The letter should include a well-reasoned defense for selecting each particular person as a committee member. The College and Departmental affiliation of each faculty member must be specified.
4. Following receipt of this letter and checklist, the Graduate Staff Assistant will prepare the Doctoral Committee Approval form for the student and will collect signatures from committee members and the Director of Graduate Studies (DGS). The DGS may ask to meet with the student to discuss committee composition.

Doctoral Committee Criteria

A doctoral committee must meet the following criteria:

- a. A minimum of four (4) members, all of whom are members of the graduate faculty.
- b. At least two faculty members must be in the candidate's major field (Psychology).
- c. The committee must be chaired by a faculty member holding a tenured or tenure-track appointment in the Department of Psychology. Graduate faculty members not holding such an appointment may serve as co-chair with a Psychology faculty member.
- d. One member must be an "Outside Field Member" who represents a field outside of the students' major field. The purpose of this requirement is to offer a diverse disciplinary perspective.
- e. One member must be an "Outside Unit Member" who represents an administrative unit outside of the Chair's (or both co-chair's) primary appointment unit. The same person can serve as both the outside unit and field member as long as they meet the requirements of both.

For students pursuing a formal minor: The minor area must be represented on the committee, known as the Minor Field Member. This person typically also serves as the Outside Unit Member as long as they meet the requirements for that role.

For students pursuing dual title degrees: A co-chair representing the dual-title field must be appointed to the doctoral committee (counts toward the minimum of 4 members). If the dissertation advisor is a Graduate Faculty member in both the major and dual-title fields, they may serve as the sole Chair. The dual-title representative to the committee may serve as the Outside Unit Member.

Changes in Doctoral Committee Membership. On occasion, a situation may arise necessitating a change in the doctoral committee membership. If this occurs:

- (1) The student must communicate with all committee members (new and old alike) as well as the Graduate Staff Assistant in writing about the changes to be made to the committee and the reasons for those changes. The student must obtain committee members' approval of the change.
- (2) The faculty member being removed from the committee must communicate with the Graduate Staff Assistant in writing (email is fine) indicating their awareness of the change.
- (3) If a dissertation proposal has already been approved, new committee members must approve the proposal as originally voted upon.
- (4) The Graduate Staff Assistant will prepare a new Doctoral Committee form and obtain the appropriate signatures, then submit to the Graduate School for processing.

In the case of conflict or disagreement among new or old committee members, normal [university procedures](#) exist for resolving the matter (GCAC-802).

E. COMPREHENSIVE EXAMINATION

The purpose of the comprehensive examination is to allow the student's doctoral committee to evaluate the student's breadth of knowledge within, and scholarly understanding of, their major area in Psychology.

Exam Requirements

The Department of Psychology has no formal structure or procedure for the comprehensive exam; instead, the structure and procedure are determined by the training area. In most cases, the comprehensive exam involves an extensive written component providing empirically-based responses to broadly important conceptual and methodological issues central to the student's major field of study (training area) as well as an oral exam attended by the student and each of the committee members intended to provide further exploration and clarification of issues raised in the written portion of the exam. While this format may be typical, it is not mandatory.

The specifics of the exam are set by the student's doctoral committee and area requirements (see Appendix A/area handbook).

The Graduate School requires that students be registered (full-time or part-time) for the semester in which the comprehensive exam is taken.

Timing of Taking the Comprehensive Exam

Students should take the comprehensive exam prior to their fourth year of graduate study (and before completing 70 graduate credits). We expect students to complete major area coursework before or during the third year. Breadth coursework must be completed or in progress at the time of the exam.

The Graduate Staff Assistant in Psychology must be informed of the date of the written and oral portions of the exam at least three weeks prior to beginning the exam.

Modality

The comprehensive examination may be held fully in-person, fully remote, or hybrid with some individuals participating in-person while others participate remotely. Student preference for delivery mode should be strongly considered, but the student and adviser must agree on the mode. If the student and adviser cannot agree on the mode, the Director of Graduate Studies will make the final decision. Either the student or adviser can appeal the decision of the Director of Graduate Studies to the Department Head.

F. DOCTORAL DISSERTATION

The dissertation project is expected to be an original empirical and/or conceptual contribution within a substantive area in Psychology. Typically, it is an independent research project designed to help the student meet their training goals. There is no specific departmental policy or criterion that defines an acceptable dissertation; instead, this is a matter to be decided between the student and their doctoral committee.

Traditionally, students work closely with their committee Chair to complete their research and write their dissertation. Numerous drafts of the dissertation are typically necessary, and the Chair can provide valuable input. The length of time it will take to complete the dissertation depends upon the nature of the project and the time allocated by the student. However, there are few instances in which the entire process should extend beyond two years (Years 4-5).

Course Registration. Continuous registration is required for all semesters after the comprehensive exam is passed until the dissertation has been accepted by the doctoral committee. The 601 and 611 courses are non-credit thesis preparation courses that apply to those students whose sole academic activity is completion of the dissertation. The 601

designation is for full-time students while 611 designates part-time students, and both involve payment of the special thesis preparation fee rather than regular tuition.

1. DISSERTATION PROPOSAL

A proposal meeting must be held among the student and the doctoral committee members. The written dissertation proposal must be distributed to each committee member at least two weeks in advance of the proposal meeting. At the proposal meeting, the student should present the proposal and field questions from the committee members. Committee members typically focus on ways to improve the project and ensure that it is feasible within the program timeframe. At the end of the meeting, committee members will indicate on a proposal form (distributed by the Graduate Staff Assistant) their approval or disapproval of the proposal, including any necessary revisions. Ongoing contact with each committee member while completing the dissertation project is strongly encouraged.

2. DISSERTATION DEFENSE

Graduate School policy has generally established that the dissertation committee Chair and the student are responsible for assuring the completion of a draft of the dissertation and for adequate consultation with members of the committee well in advance of the oral examination. When the dissertation is delivered to the committee, it should be in its final form, with content and style meeting Graduate School standards, including appropriate notes, bibliography, tables, and so forth. Revisions to the dissertation may be requested by committee members on the basis of the final oral examination. These changes need to be made and submitted to the Graduate School prior to the dates set for graduation.

The date of the final oral examination should be given to the Graduate Staff Assistant at least three weeks prior to the exam.

The dissertation document must be delivered to all committee members at least two weeks prior to the final oral exam.

Modality

The final oral examination (dissertation defense) may be held fully in-person, fully remote, or hybrid with some individuals participating in-person while others participate remotely. Student preference for delivery mode should be strongly considered, but the student and adviser must agree on the mode. If the student and adviser cannot agree on the mode, the Director of Graduate Studies will make the final decision. Either the student or adviser can appeal the decision of the Director of Graduate Studies to the Department Head.

G. RESIDENCE REQUIREMENT

The Graduate School requires that over the course of some 12 month period, students spend two semesters as a registered full-time student engaged in academic work at the University Park campus. Residence requirements can be met from the time of entry into the graduate program, which should make this an easy requirement to satisfy. However, if you are receiving an assistantship (teaching or research), you are required to be in residence. As of Fall 2023, the Graduate School is designing guidelines and a process for requesting an exception to this rule. If you are on a fellowship, additional rules and procedures may apply. Bottom line: If you need to be out of residence during AY 2023-2024, check with the DGS immediately for guidance. After AY 2023-24, do the same, but also refer to guidance that should be forthcoming.

DEGREE REQUIREMENTS TIMELINE

Although flexibility exists, the doctoral degree should be completed within five years as a full-time student (plus a 6th internship year for clinical students). To facilitate students' progress toward degree, we provide an ideal timeline for reaching milestones as well as deadlines for remaining in good standing in the program.

YEAR 1

- Coursework
 - Begin major area course work (2 in Fall and 2 in Spring typically)
 - Complete stats sequence (PSY 507 and 508 typically)
- Begin conducting research (take PSY 600 credits in Fall, 610 credits in Spring).
- Complete English language requirement and Scholarship And Research Integrity (SARI) ethics training (online portion and three hours of discussion-based) during PSY 501
- Research with primary advisor
 - Form Master's committee
 - Propose Master's thesis or Approved Alternative, ideally by end of Year 1

YEAR 2

- Continue coursework
- Complete final two hours of discussion-based SARI ethics training
- Pass Qualifying Exam to advance to doctoral candidacy (end of Fall semester)
- Complete and defend Master's thesis or Approved Alternative, ideally by end of Year 2
 - If you plan to get a Master's degree, tell Sherri before December 1 if you plan to graduate in Spring (or April 1 for summer and August 1 for Fall graduation)

YEAR 3

- Form Doctoral Committee during Fall (maximum one year after passing qualifying exam)
- Complete remaining course work
- Conduct two semesters of research with a second faculty member (Minor Project)
- Take Comprehensive Exam, ideally by end of Year 3

YEARS 4-5

- Propose dissertation, ideally by end of Year 4
- Conduct dissertation research
- Defend dissertation, ideally by end of Year 5

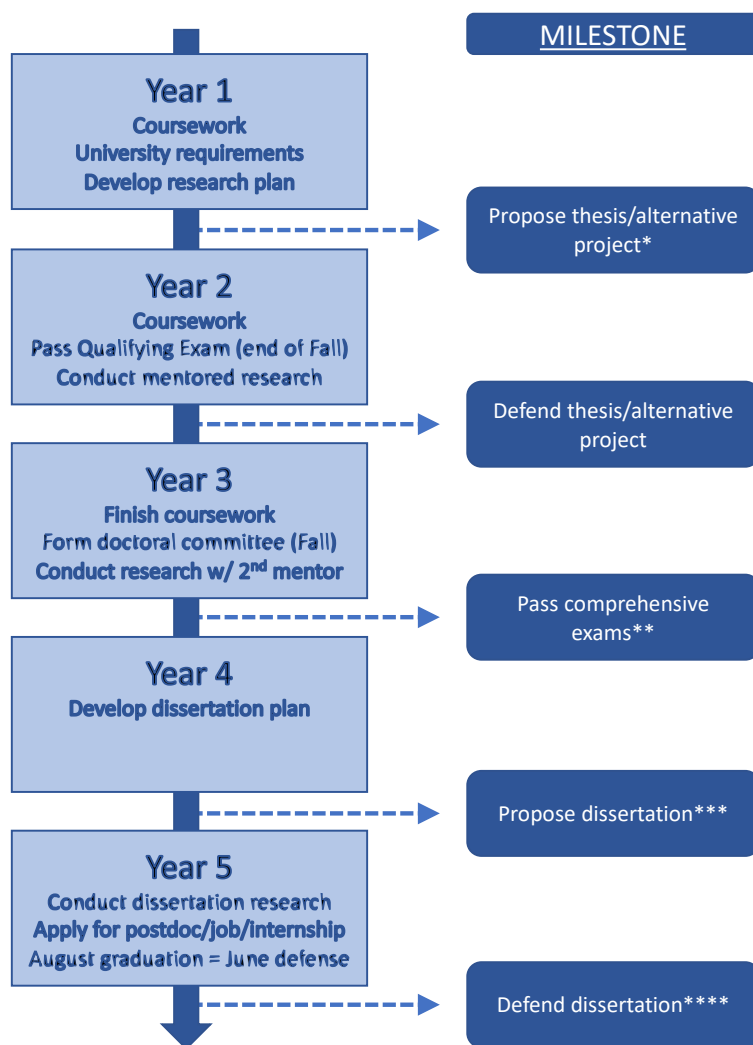
At the end of your 4th year, if you will be unable to complete your dissertation by the end of your 5th year, you must discuss with your advisor. Your advisor needs to provide a written justification to the Director of Graduate Studies to request funding past year 5.

Sixth year funding is not guaranteed and, if granted, will be at the base (Grade 12) stipend level.

GRADUATE SCHOOL & DEPARTMENT TIMELY PROGRESS EXPECTATIONS

(also review area handbooks for area-specific expectations)

⇒ **Inform Sherri Gilliland of each milestone at least THREE weeks in advance** for Graduate School to recognize the event (if you do not, you may need to reschedule and be delayed).



* Students entering with a research-based Master's degree also need to orally defend their existing thesis to meet the departmental research requirement. They must still complete research with at least two mentors during their graduate career.

** Post-comps students have substantially lower tuition, which frees up departmental funding and helps these students to be funded on grants. Comprehensive exams must be passed prior to the semester start to receive the financial benefit.

*** Clinical students must propose their dissertations prior to September 15 to apply for internship. To avoid paying out-of-pocket tuition while on internship, clinical students should plan to defend their dissertation in their 5th year (except for international students who must defend at the end of internship due to DISSA requirements).

**** If your advisor, area, and DGS agree to provide financial support for you in a 6th year, your stipend will be at a Grade 12 (basic level). Some exceptions exist for those who entered the program with an enhanced stipend (e.g., UGF, BW) then had a multi-year externally funded fellowship (e.g., NSF GRFP, NRSA).

TIMELY PROGRESS: GOOD VS. POOR STANDING

Good Standing: We expect all students to be (and remain) in good standing. Therefore, if you are not in poor standing, you are in good standing! Students who are in good standing will have priority for departmental funding. This includes teaching assistantships, instructor positions, and travel/research awards (including higher amounts of allocated travel/research funding each year while making timely progress).

WHAT IS POOR STANDING?

If you do not complete a milestone more than one year after the ideal timeline, you will be considered to be in poor standing in the department. This includes:

- Failure to propose a Master's thesis or Approved Alternative by the end of the 2nd year.
- Failure to pass qualifying exam by the end of the Fall semester of the 3rd year.
- Failure to defend a Master's thesis or Approved Alternative by the end of the 3rd year.
- Failure to successfully pass the comprehensive exams by the end of the 4th year.
- Failure to successfully propose a dissertation by the end of the 5th year.

It is recognized that individual situations may involve deviations from the ideal time frame. Deviations greater than a semester should be addressed in your advisor's annual evaluation letter, including a statement as to why the deviation occurred and a specific plan for getting back on track.

Other possible reasons for being considered in poor standing include:

- Failure to follow expectations for academic integrity or research integrity.
- Failing grade in any course that is part of your program requirements.
- Grades lower than B+ in multiple courses, particularly if this results in a cumulative GPA below 3.0 in any semester, which the Graduate School Bulletin indicates "is evidence of failure to maintain satisfactory scholarship."

Consequences of Being in Poor Standing. In addition to loss of funding priority (i.e., potentially not receiving an assistantship), being in poor standing for more than one year without improvement, and failing to make acceptable progress toward a degree, places a student at risk for termination from the program.

Termination from the program occurs very rarely. (When a student leaves the program it is almost always the student's decision as graduate school is an experience that can cause students to rethink their career plans.) When faculty advisers initiate this conversation, termination occurs after careful consultation with the student, the area's faculty, and the Director of Graduate Studies. Please see here for graduate school policy about termination: <http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-800/gcac-803-procedures-termination-unsatisfactory-scholarship/>

GRADUATE STUDENT ANNUAL FEEDBACK REPORTS

Formal faculty feedback and evaluation of each graduate students must be conducted at least once annually. The goals of this process are to closely monitor the student's progress and growth, identify strengths and weaknesses, and make suggestions or give feedback as appropriate. This reduces ambiguity for the student and can serve as a forum for focused mentoring so that, if difficulties have arisen, students have ample time to rectify any concerns.

Content

The major issues addressed in the feedback reviews include:

1. Assistantship performance
2. Coursework completion and performance
3. Timely progress of major milestones
4. Research progress (conferences, publications) and work with two advisors
5. Applied work (if applicable; usually I/O and Clinical)
6. Service to the area or department

Timing

Formal evaluations occur at least yearly near the end of the Spring semester, with students receiving written feedback in May. Typically, area faculty also evaluate the progress and performance of new graduate students at the end of the fall semester of their first and second years, though written feedback is only provided if concerns are identified. For second year students, the fall evaluation constitutes the Qualifying Exam.

Process

1. Student Input. Near the end of each academic year (April), students provide input into the process via a Qualtrics survey, including the following:
 - (1) A brief narrative that relates the student's past and planned activities to their career goals. A conversation should take place with the student's academic advisor that includes career planning at the appropriate level for the student and integration of those ideas with the training plan (courses, TA assignment requests, research activities, skill development, etc.).
 - (2) Updates on research projects and timely progress through the program (e.g., defense dates and coursework).
 - (3) An updated vita that includes any honors, awards, publications, and presentations accrued.
 - (4) Anything else required by the training area (see Appendix A/area handbook).
2. Faculty Review. This information is reviewed by the advisor and area faculty. Toward the end of each year, area faculty convene to review graduate students' progress and determine whether additional support or interventions need to be taken for specific students.

3. Advisor Feedback Meeting with Student. The advisor meets with the student to communicate feedback and set goals. Following the meeting, the student should receive a letter that summarizes the evaluation of their performance and progress to date. The student signs the letter to show they have discussed the feedback with their advisor.

4. Submission of Letter to Department. Letters signed by the student, the advisor, and the Area Coordinator are turned into the Graduate Staff Assistant.

These annual reports are necessary to ensure that all the departmental and Graduate School requirements have been met and the department can indicate to the Graduate School that the student has satisfied all requirements for the degree. The department will not forward graduation or degree materials to the Graduate School without having reviewed progress. Additionally, our graduate program is well regarded within the University community, and the data you provide us helps us showcase the many accomplishments of our students.

GRADUATE STUDENT FINANCIAL SUPPORT

As long as students have met the timely progress milestones and other criteria stipulated above, funding (i.e., tuition, fees, and stipend) is guaranteed to our students for five years. This support is most often provided in the form of a departmental assistantship. These typically involve half-time (20 hours/week) teaching assistantships (TA) or research assistantships (RA). Research assistantships (RA) are at the prerogative of the funding faculty member and are not limited to Psychology Department faculty projects. Alternate funding sources should cover full stipend, tuition, and fees; if they do not, the student will need to secure permission from the DGS and Department Head to take the position.

Graduate Assistantship Credit Limits. The credit load limit depends on the proportion of time you are delegated to an assistantship. Normally, students are on $\frac{1}{2}$ time assistantships, which specify 20 hours of assistantship responsibility per week and allows students up to 12 credits of coursework. On rare occasions, students may have $\frac{1}{4}$ time (10 hours) assistantships and can take up to 14 credits a semester.

1. TEACHING ASSISTANTSHIPS

In addition to playing an important role in undergraduate education, teaching assistantships (TAs) can be an important part of your educational experience. They can provide opportunities to gain a working knowledge of academic life and responsibilities, to stretch or deepen your knowledge, to get a taste of what it is like to work with undergraduate students, and to learn important teaching skills.

Process of Assignments. Assistantships are assigned by the Associate Director of Graduate Studies (ADGS). About mid-way through each semester, the Graduate Staff Assistant distributes an online survey to all graduate students so you can communicate your interest in a TA position. The ADGS then assigns students to the courses for the upcoming semester. This is a complex process that takes into account students' course schedules, preferences and expertise, and that semesters' teaching or research needs, in an attempt to optimize the match between students and funding positions. Changes to preferences cannot be accommodated at the last minute.

Hours and Timing of Commitments. The tasks and time commitments vary greatly from semester to semester and week to week, but you should not work more than 20 hours per week *on average* (or 10 hours per week, on average, for a 10 hour assistantship). If you feel that the assistantship is requiring more hours than this, discuss how you might do things more efficiently with the professor directly.

TAs are expected to be available to the assigned faculty member throughout the semester, including the week prior to the start of classes (at least remotely) and the final examination period. For example, the week before the semester starts, some instructors like to have the TA's contact information for the course syllabus and appreciate your help reviewing/checking course materials. Additionally, if the course has a final exam on the Friday of finals week, you may be expected to assist with grading the following Monday.

Performance Expectations. At the beginning of the semester, you should ask your assigned instructor(s) about what is expected in the position to avoid later misunderstandings. This should include, but not be limited to, preferences regarding attendance of lectures, storing of materials, use of CANVAS, office hours, travel during breaks or end of the semester, preferred forms of communication, and expected tasks and timeliness of their completion. Typical tasks and duties include assisting/educating students who missed class because of a legitimate and unavoidable situation, constructing or reviewing quizzes/exams, constructing answer keys, transporting or collating course materials, scheduling and supervising make-up or special-situation exams, grading, creating/maintaining a course grade book, responding to email, and assisting with course technologies. Although instructors expect similar things from teaching assistants, the tasks, duties, and communication styles of our faculty vary greatly.

Generally, instructors expect from teaching assistants:

- Successful interactions with undergraduate students: TAs should be respectful, approachable, willing to assist, show concern for students' educational progress, and respond to student requests promptly and professionally.
- Successful interactions with instructors. TAs should be respectful, adaptable, demonstrate a willingness to assist, be responsive to requests, make themselves available as requested, demonstrate emotional maturity, take initiative or seek guidance appropriately, maintain a professional attitude, and respond to requests promptly.
- The successful completion responsibilities. TAs should strive to complete work timely, accurately, consistently, in an organized fashion, and with attention to detail.

TA and Instructor Feedback. At the end of the semester, instructors are asked to submit evaluations of teaching assistants to the department, which are considered in yearly evaluations and can impact future assistantships. In addition, the department asks TAs to provide an evaluation of their experience working with the instructors in a confidential online survey. To ensure confidentiality, these are aggregated over several semesters, then used to provide feedback to the instructor. If you experience highly problematic or unfair conditions, you should discuss these immediately with the instructor, the Director of Graduate Studies, and/or the Associate Director of Graduate Studies.

Termination from Assistantship. On rare occasions, problems arise in assistantship assignments or in relationships between instructors and their assigned teaching assistants. If problems develop, the first step in resolution is for the instructor and the TA to meet and attempt to reconcile any difficulties. If a satisfactory solution is not reached, the student or instructor may request a review by the Director of Graduate Studies. The DGS will meet separately with the student and the instructor, and collect any other necessary information to adjudicate the matter. The DGS could recommend reconciliatory steps or termination from the assistantship, with this decision to be binding upon approval from the Department Head. Graduate students terminated from an assistantship can appeal the decision by filing a written grievance with the Dean of the College of Liberal Arts. Procedures for such an appeal are specified in the appendices of the Graduate Bulletin: <http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-800/gcac-804-termination-assistantships-inadequate-performance/>. Students may also lose assistantship guarantees for not making acceptable progress toward the degree (see Timely Progress: Good vs. Poor Standing).

2. INDEPENDENT INSTRUCTION

Teaching that goes beyond the typical teaching assistantship may be an option for more advanced students, and can provide important experience for students planning academic careers.

There are three options:

1. Teaching a lab section of Research Methods (PSYCH 301W) provides an opportunity for supervised classroom teaching, and is good preparation for more independent teaching.
2. Online teaching in the World Campus Psychology program provides students with complete responsibility for teaching a section of a course with previously prepared syllabi and materials. World Campus instructors provide feedback, grade assignments, and provide a human presence to online students.
3. Resident instruction of a course provides students with complete responsibility for developing and teaching a course on the Penn State campus. The responsibility is the same as a faculty member.

Criteria for teaching. Students must have defended their master's thesis or equivalent to teach independently in World Campus or resident courses, and must be in good standing. Typically the same criteria exist for teaching a lab section of 301W. Other factors considered in offering teaching assignments include match of expertise, relevant preparation (e.g., previous TA assignments, Schreyer's teaching certification), and seniority. To teach independently (World Campus or an in-residence course), students are required to first teach a lab section of PSYCH 301W. We try to provide opportunities to as many advanced students as possible, which means that sometimes students who have not yet conducted independent teaching are prioritized over more senior students who have already had the opportunity for independent teaching.

Applying to teach: For teaching PSYCH301W, indicate your interest when you submit your TA request to the Associate Director of Graduate Studies. Applications for online World Campus and resident teaching are solicited each semester via email from the Associate Head for Instruction. To maximize the chance of independent teaching during your graduate career, it is best to apply as soon as you have completed your Master's project, rather than waiting until your final year, and to be flexible in requesting specific courses and online versus resident teaching. Compensation for these teaching assignments is through standard assistantships during fall and spring semester (20 hours) and on a salary basis for summer sessions.

Opportunities for teaching in other psychology-related departments are sometimes available, and typically communicated through email or direct contact with qualified students.

3. EXTERNAL FELLOWSHIPS AND AWARDS

There are a number of opportunities for Psychology graduate students to apply for external support during graduate school. These are especially excellent awards to receive if you want to free up time to focus on research and individual training. They are also gems on your vita.

Here are a few examples:

- (a) The National Science Foundation (NSF) has a Graduate Research Fellowship Program (GRFP), which many first and second year graduate students are eligible to apply for. Assuming satisfactory progress on your training goals, this fellowship will pay your stipend, tuition, and fees for three years.
- (b) The National Institutes of Health (NIH) has a graduate fellowship mechanism, the F31 or National Research Service Award, that advanced graduate students are eligible to apply for to support their dissertation work.
- (c) The American Association for University Women (AAUW) has a dissertation fellowship.
- (d) The American Psychological Association (APA) has a graduate fellowship that is available to members of under-represented groups.
- (e) There are also other programs and training grants within Penn State that are designated for support of graduate students. These vary over time based on funding. Some examples

include the T32s associated with the Network for Child Maltreatment Solutions and the Prevention and Methodology Training (PAMT) Program.

In addition to incentives for applying to the NSF GRFP that may be outlined in your original offer letter, the Graduate School and the College of Liberal Arts offer financial incentive programs to encourage and reward students for investing the effort needed to apply for prestigious fellowships and awards. Please see: <https://la.psu.edu/current-students/graduate-students/student-resources/funding-opportunities/external-funding-incentive-award>

4. OTHER FORMS OF ASSISTANTSHIPS

Graduate students may be supported in other ways, though they occur less commonly. Examples include:

- a. *Clinic Assistantships*. Advanced clinical students are sometimes sought to provide additional clinical work in the Psychological Clinic over and above their practicum obligations. These generally operate like teaching or research assistantships.
- b. *Faculty contracts*. These are similar to research assistantships on grants, but usually have a more applied component to them. An example is the Assessment Center Assistantship in I/O.
- c. *Wage payroll*. Occasionally wage payroll positions are available that do not provide remission of tuition and fees, but cover stipend costs. These positions must be approved on a case-by-case basis by the DGS and Department Head.

OTHER SOURCES OF FINANCIAL SUPPORT

1. SUPPLEMENTAL INCOME AND DEPARTMENTAL “OVERLOAD” POLICY

Consistent with University policy (<https://gradschool.psu.edu/graduate-education-policies/gsad/gsad-900/gsad-901-graduate-assistants/>), during the academic year, if a student accepts an assistantship for 20 hours, the “overload” policy prohibits the student from taking on additional regular employment without the written permission of the Director of Graduate Studies. All extra funding options must also be approved by the financial staff personnel.

This policy was designed in service of (a) students being able to perform all their roles successfully, and (b) fairness in the distribution of funding. Accordingly, we will consider, on a case-by-case basis, students’ requests for permission to accept additional funding beyond that provided by a 20-hour (or half-time) assistantship.

Overload requests are more likely to be approved if:

- the time involved is small (e.g., 3 hours per week for 3 or 4 weeks),

- the work is consistent with, or necessary for, the student's training needs,
- the student is in good standing and making timely progress, and
- and the student's advisor supports the request.

To the extent the additional work involves larger hours, a higher bar must be met in terms of (a) the case for the work being beneficial to the student's training and (b) demonstration that the student will continue to meet or exceed timely progress.

2. SUMMER FUNDING

Some students have some form of summer funding early in their graduate career due to their recruitment contracts. Otherwise, there is no guaranteed funding in the summer. There also are no TA positions available during the summer sessions. However, students can sometimes work on faculty grants during the summer in exchange for summer funding. Additionally, graduate students who teach in summer session generally do so through Fixed Term contracts. Talk to your advisor about possible summer funding available.

3. DEPARTMENTAL FUNDS FOR RESEARCH AND TRAVEL

Endowment and departmental funds are available to help fund your travel for academic purposes (e.g., conference presentations, workshops, conducting research) and research projects. In recent years, annual allocations generally fell in the \$400-\$700 range per student in order to permit all eligible students to have access to this resource.

The amount allocated is based on the following eligibility criteria:

- a. First through sixth year graduate student in good standing (7th year students are not eligible except in special cases). Funding amounts increase as students get closer to the end of their graduate career.
- b. Be in good standing and making timely progress. Students who are more than two semesters behind the ideal timely progress timeline may not be eligible or will receive less funding (unless there are exceptional circumstances). Students who have exceed the ideal timely progress timeline are eligible for more funding.
- c. The supported activities must be approved by a faculty advisor as supporting your academic development (e.g., thesis/dissertation; society meeting). Somewhat more funding is provided for activities (e.g., presentations) that are first-authored compared to those that are not.
- d. Child Clinical and Developmental students are not eligible as they should request funds from the Child Study Center instead.
- e. I/O students are only eligible if practicum funds are not available. Please discuss funding options with Practicum instructors first.

Procedure

Applications are received and processed on a rolling basis by the Director of Graduate Studies and departmental staff. For conference travel, you must apply after your conference presentation formally accepted, but PRIOR to the travel/research. To submit an application for AY 2022-2023, complete the Qualtrics survey and submission form:

https://pennstate.qualtrics.com/jfe/form/SV_0vvqQEPXEeR04Wq

4. AWARDS

A wide variety of awards exist within the Psychology Department, College of the Liberal Arts, University Graduate School, and beyond. Departmental awards are generally decided by the departmental awards committee. Nominations for College, University, and professional awards are typically made by the DGS in collaboration with the departmental awards committee. Information on awards that Psychology students commonly apply to is often provided via the departmental graduate student listserv, but can also be searched for online. Below is a list of common awards, who administers them, and when nominations are typically sought. Please note that some areas have additional awards that they commonly provide.

Fall Semester

College of the Liberal Arts:

Raymond E. Lombra and Roberta Lombra Outstanding Graduate Research Award
Denise Haunani Solomon Liberal Arts Outstanding Teaching Award for Graduate Students
Lynn M. Sebulsky Memorial Award
RGSO Dissertation Support Competition
Superior Teaching and Research Award
External funding awards

Penn State Graduate School:

Alumni Association Dissertation Award
AT&T Graduate Fellowship
Graduate Student Excellence in Mentoring Award
Graduate Student International Research Award
Harold F. Martin Graduate Assistant Outstanding Teaching Award
Harold K. Schilling Dean's Graduate Scholarship
Thomas and June Beaver Fund Award
Penn State Alumni Association Scholarship for Penn State Alumni in the Graduate School
Intercollege Graduate Student Outreach Achievement Award
Distinguished Master's Thesis Award

American Psychological Association:

APA Dissertation Award
APA Koppitz Award

Spring Semester

Department of Psychology:

Outstanding Publication by a Graduate Student

Outstanding Teaching Award

Matthew Serafino Award

Wisniewski Family Enhancement fund

College of the Liberal Arts:

Forrest S. Crawford Graduate Fellowship in Ethical Inquiry

Susan Welch/Nagle Family Graduate Fellowship

Superior Teaching and Research (STAR) Award

RGSO Dissertation Support Competition

External funding awards

Federation of Associations in Behavioral and Brain Sciences:

Doctoral Dissertation Research Excellence Award

ADDITIONAL RESOURCES

The following is intended as a brief summary of resources available on a variety of topics. It certainly is not a complete list, but hopefully can serve as a quick reference.

DIVERSITY AND INCLUSION

BRIDGE Diversity Alliance: A diversity action alliance of faculty members and graduate students in the Department of Psychology who are interested in promoting and addressing diversity-related issues within our program, community, and beyond.

<https://psych.la.psu.edu/diversity/bridge-diversity-alliance>

The Graduate Alliance for Diversity and Inclusion (GADI): An organization devoted to the principles of diversity and inclusion among graduate students in the College of the Liberal Arts at Penn State. GADI is a space for building community, sharing knowledge, and advocating for policies that promote diversity and inclusion for underrepresented students.

<https://la.psu.edu/about/equity-inclusion-and-diversity/the-graduate-alliance-for-diversity-and-inclusion/the-graduate-alliance-for-diversity-and-inclusion>

The Affirmative Action Office: This University office responds to complaints of, or concerns about, prohibited harassment or discrimination on the basis of age, race, color, ancestry, national origin, religion, creed, service in the uniformed services (as defined in state and federal law), veteran status, sex, sexual orientation, marital or family status, pregnancy, pregnancy-

related conditions, physical or mental disability, gender, perceived gender, gender identity, genetic information or political ideas.

<https://affirmativeaction.psu.edu/welcome/discrimination-complaints/>

Penn State Global: This University office provides oversight for all of the university's international engagements, including serves as a primary resource for international students.

<https://global.psu.edu/students>

International students in the clinical area who are approaching their internship year should consider applying for a tuition scholarship: <https://global.psu.edu/node/204>

Other: GADI has put together a list of a wide variety of community resource that can be accessed here: https://docs.google.com/document/d/1X_ZuGGofXIAV3-h15k1r0dG4KUvD70C75qCEPA8hdvY/edit

HEALTH AND WELLNESS

Paid Leave for Health or Family Reasons. As soon as you know that there are personal reasons (i.e., illness, the birth of a child) that you need to leave your assistantship or coursework, please inform the DGS and your advisor. There are short-term (1 week) and long-term paid leaves (up to 6 weeks) that can be arranged to address your needs and the commitments to the department. If you need to take a leave for longer than 6 weeks, please discuss with the DGS. Graduate school policies regarding leave of absences can be found here:

<http://gradschool.psu.edu/graduate-education-policies/gsad/gsad-900/gsad-906-graduate-student-leave-of-absence/>

Counseling and Psychological Services (CAPS): Provides counseling, crisis intervention, psychological and psychiatric evaluations, and prevention services to all University students.

<https://studentaffairs.psu.edu/counseling>

Student Support Resources. This guide provides information regarding Human Resources, Lion Pantry (for food insecurity), the Graduate Student Association, and more.

<http://gradschool.psu.edu/current-students/graduate-student-resource-guide/>

TECHNOLOGY AND PERFORMANCE

Graduate Writing Center: This service can assist you during any stage of the writing process, regardless of genre, including items such as: Thesis/Dissertation proposals and products, book chapters, coursework (e.g., lit reviews, lab reports, seminar papers), conference abstracts and talks, research manuscripts, and job applications (e.g., research/teaching statements, cover letters).

<https://gwc.psu.edu>

Liberal Arts Tech Support: Although their highest priority is to serve staff and faculty, technicians are also available to work with graduate students. When requesting computer support, requests should be submitted through the Liberal Arts Help Desk (<http://techsupport.la.psu.edu/> or 865-3412). Please keep in mind that IT staff members support approximately 500 computers, so please be patient when waiting for assistance. The department does not provide software or computer instruction, except as available to students working in particular laboratories and as installed on departmental computers. Check with your adviser or other graduate students when choosing software. Many popular packages, as well as hardware, are available at academic discounts through the Microcomputer Order Center in Willard Building.

Qualtrics Accounts. All Penn State students have access to a Qualtrics account to do online surveys.

FINANCIAL LITERACY

The Sokolov-Miller Family Financial and Life Skills Center: This Penn State center provides a wide variety of forms of support to help students manage their finances. This includes issues such as debt management, student loans, taxes, salary negotiations, banking, credit cards, budgeting, etc. To address these issues, the center provides one-on-one coaching, self-study modules on 28 different topics, live and recorded webinars twice/month, and a mentoring program.

To learn more see: <https://financialliteracy.psu.edu>

MENTORING BEST PRACTICES AND OPPORTUNITIES

Faculty Advisor: Your relationship with your faculty advisor is a long one, and can have its ups and downs. Here are some ideas for how students and faculty can work effectively together.

Tool Kit: <http://gradschool.psu.edu/current-students/mentoring/>

Best Practices: <http://gradschool.psu.edu/faculty-and-staff/faculty/recommended-practices/>

Peer Mentors: Your cohort and your more senior peers can be a source of information, norms, and emotional support. To encourage additional sources of support outside the area, the department supports a peer mentoring program for first year students, with second year+ students volunteering as mentors and meeting with their mentees once a month. This system is introduced in PSY 501.

APPENDIX A: MAJOR AREA REQUIREMENTS

1. CLINICAL AREA

Students in the Clinical Psychology Program (both adult and child) have many specified required courses, and generally less flexibility than students in other areas. This is due to APA accreditation requirements for PhD programs in Clinical Psychology. In a few cases, Clinical students have more than one course option that will satisfy specific area requirements, and therefore, consultation with one's advisor and the Clinical Area Coordinator (Director of Clinical Training; DCT) remains critical. Specific requirements for clinical students are available in The Clinical Psychology Program Manual of Procedures and Requirements, a separate document available from the Director of Clinical Training that can also be found online in the Clinical Area graduate program webpage under the Psychology Department's main webpage. Please note that this appendix is not comprehensive and is meant as an addendum to the Clinical Manual of Policies and Procedures, which includes the graduate requirements specific to the Ph.D. for the clinical psychology area.

BREADTH

Specific courses have been determined as meeting the stringent APA requirements as Breadth courses and these are required for all Clinical students. See the Clinical Psychology Program Manual.

BACKGROUND: The breadth requirement is a longstanding requirement of the Psychology Department, reinforced by the APA's Discipline Specific Knowledge requirements and by state licensing boards. The requirement reflects the value placed in psychologists being trained broadly in their field and then specialized in a particular sub-discipline.

COURSE REQUIREMENTS FOR BREADTH: Graduate level course requirements are intended to build on students' prior foundational knowledge to provide breadth in content areas and to meet Discipline Specific Knowledge requirements. Required courses provide fundamental grounding in the major theories and empirical literature in the particular domain of psychological functioning. These ensure that students entering the job market are knowledgeable about classical and current work in the major fields and are able to communicate effectively with faculty from other areas. See the Clinical Psychology Program Manual for specific information about these requirements.

a. CHILD TRACK STUDENTS

For those in the child clinical track, an emphasis on development is additionally necessary, thus requiring completion of at least one developmentally framed study during graduate training and 3 substantive developmental courses. One of these course requirements is met by the integrated lifespan development sequence of PSY 542 and PSY 575, which provides background in normal and abnormal development across the lifespan. The two

additional courses can include substantive courses offered in the Psychology department's Developmental area and HDFS (and, on some occasions, other departments that offer a course with a clear developmental foundation). With the advice of the advisor, some students fulfill one course requirement by taking a developmental methods course (i.e., specific methods for analyzing change over time). As an alternative, students may take the formal HDFS minor (15 credits) to satisfy this requirement.

b. ADULT TRACK STUDENTS

For those in the adult clinical track, additional breadth of training is met with an additional research project (beyond other required research projects) or a substantive paper. This project may be conducted within any area of interest and is typically used as a means to satisfy the departmental requirement of working with more than one faculty member. This project should result in a high quality written product of potentially publishable quality that is then turned in as part of, and at the same time as, the student's written comprehensive examination.

MASTER'S THESIS OR APPROVED ALTERNATIVE

This project will permit evaluation of students' progress toward meeting APA required Profession-Wide Competencies:

- Research
- Ethical and Legal Standards
- Individual and Cultural Diversity
- Professional values, attitudes, and behaviors
- Communications and interpersonal skills

Proposal

- A 3-4 page prospectus should be circulated for the committee to approve (no committee meeting is necessary).
- This can be worked on as part of research methods course in spring semester of first year.
- Once approved, email your advisor and graduate staff assistant (Sherri) that this step is complete.
- The committee's assessment of the proposal will be included as part of the Qualifying Exam, so must be completed before the end of the 3rd semester.

The Written Summary

- Format: In the form of a paper ready for submission to a scientific journal.¹
 - Submission and ultimate publication are strongly encouraged, but not required.

¹ Students will also have to work up a version in the thesis format required by the graduate school for submission to the graduate school.

- Content: A summary of an original empirical study, a meta-analysis, or a major systematic review of a body of empirical work.
 - Review papers must include a substantial focus on critical evaluations of the research methods in the review domain.

Defense Meeting

- A maximum 20-minute oral presentation of the project in the format consistent to a scientific conference presentation to assess oral communication skills.
- A maximum 90-minute total meeting time, including question/answer/discussion/decision period with the committee.

Note: The clinical area strongly encourages all students to obtain a Master's degree based in part on this project.

COMPREHENSIVE EXAM

Detailed information about the comprehensive examination procedures for both child and adult clinical tracks are available in the Clinical Psychology Program Manual Appendix C and D.

APPLICATION TO INTERNSHIP

For a clinical student to apply for internship the student must have (a) passed the comprehensive examination and (b) successfully defended the dissertation proposal. Moreover, these must be accomplished by September 15th of the year the student applies for internship.

DISSERTATION

The doctoral committee must include at least one member of the clinical faculty. Child-clinical students must have at least one committee member from the child-clinical track and adult-clinical students must have at least one committee member from the adult-clinical track.

Note that clinical faculty recommend that one of the projects that students conduct during their time at Penn State is a project that they have designed (with the help of their mentors) and carried through to the end. The faculty believe that this is an important educational tool for becoming an independent researcher. Although it would be ideal for all students, we recognize that child track students may be unable to do this, as the time to recruit and conduct research with children, particularly from a developmental perspective, can be prohibitive, and also that designing studies using "big data" can also be a valuable learning experience.

2. COGNITIVE AREA

The goals of the major requirements are to:

- (a) attain sufficient background in your chosen sub-area to be able to propose and conduct independent research
- (b) attain sufficient background in the broader field of cognitive psychology to be able to discuss and collaborate with people outside of your immediate sub-area of research.

Specific requirements for cognitive students in fulfilling the 18 credits in their major area are the following:

- (1) One course (3 credits) must be the area proseminar (PSY 524).
- (2) No more than one course (3 credits) may be filled at the 400 level.
- (3) No more than 3 credits may be filled through independent study.
- (4) Two courses (6 credits) must include PSY 520, 521, 525s (or the equivalent that focus on content domains within cognitive psychology).

The goal of the breadth requirement is to be prepared as a generalist in psychology so that you can communicate with and possibly collaborate with psychologists in different major areas of the field. 400-level courses cannot be applied to the 12 credits of breadth requirement, unless the student has successfully petitioned for such to the cognitive area faculty. No more than 6 credits of independent studies can be counted towards breadth requirements.

Students should be communicating regularly with their advisor while working out their plans for how they will meet the requirements. The cognitive faculty as a whole must approve this plan no later than the end of the first semester for the student's second year.

Finally, additional requirements for cognitive students are the following:

- (1) Students are expected to attend the weekly cognitive area brown bag, and to occasionally present their research in that setting.
- (2) At the end of each academic year, students are to file (via Qualtrics) a current vita, a statement of progress through the past year, and a statement of plans for the subsequent year.

Cognitive area guidelines for master's degree and advancement to candidacy

The department guidelines stipulate the timeline and more general aspects of the candidacy and master's degree aspects of the PhD program within Psychology. Here we stipulate area specific components of these two crucial aspects of progress through the early stages of the graduate program.

Additional Information

- 1. Please note that the major and breadth requirements are independent. There is flexibility in terms how courses are mapped into those requirements, but the same course may not be counted in both places. For questions about placing courses, please consult with your advisor or the area coordinator.
- 2. For classes equivalent to 525 permission should be sought from the area coordinator with the provision that the class covers an in-depth survey of a focal content area within cognitive psychology.
- 3. In addition to the formal requirements listed above, all students in the cognitive program are expected to be continuously engaged in research and to participate in the Cognitive Brownbag meetings.

4. Requirements of other programs and specializations (SCAN, Language Science, etc.) may, when appropriate, be applied toward breadth or major requirements, but do not need to be listed on this form. They should be noted elsewhere in the annual evaluation portfolio.
5. The requirement to conduct research with a second faculty member may be met by the breadth project, by SCAN lab rotations, or by collaboration that is not related to other requirements. However, it is expected that this work will result in a written product that can be evaluated by the doctoral committee at or prior the dissertation defense.
6. Exceptions to these requirements are to be discussed with the advisor and approved by the Cognitive faculty and, in certain circumstances, by the Director of Graduate Training.

Qualifying Exam:

The qualifying exam (advancement to candidacy) is the crucial step in your progress towards a PhD according to the University's Graduate School. This is a marker that you have the training, skills and competence to proceed onward to a graduate education and you are not considered a doctoral student until this milestone is passed.

The committee:

Your qualifying exam will be mediated through a committee consisting of two members of the cognitive area, and an external member approved by the two cognitive committee members.

The project that will suffice for advancement to candidacy should be an empirical or computational project, which means that it relies on analyses of data or simulations that you have developed yourself. These analyses and simulations can use data collected by others, if agreed by the committee. This could be a meta-analysis, if the committee approves. However pure theory or review papers are not considered sufficient for demonstrating mastery in all of the areas.

In some cases, a student may wish to present a first-author published paper, or MA degree from a different institution as evidence of candidacy. The committee will decide in such cases to what extent this material is suitable for completing the requirements of the qualifying exam. In some cases the committee could decide that the submitted material requires an additional research project or written component. This additional component would serve to demonstrate their mastery of the topic and tie their work to the area of study. The committee may also decide that the previously completed material is not suitable for advancement, which might be the case if it is too far removed from the student's research program, or not of sufficient depth to clearly demonstrate mastery.

The committee is the ultimate decision maker when it comes to determining the suitability of a project.

The committee will determine whether a pre-approval meeting (i.e. a proposal defense) is required. However, an oral defense of the final project is required and should occur at a meeting that can either be open or closed to the public, at the discretion of the committee. An oral defense is required of all students, even if advancement is based on an existing paper or MA degree.

Preapproval procedure: For all qualifying exam options (a project, an existing MA paper, or a new MA paper), preapproval of the project will be obtained via the following process:

- 1) A 2-4 page proposal will be submitted to all committee members.
 - 2) The committee will have 2 weeks to provide feedback to the student.
 - 3) The student will then have 2 weeks to incorporate the committee's feedback into the proposal and resubmit the final proposal to the committee for approval.
 - 4) Inform the Graduate Training staff assistant (Sherri) when it has been approved.
- Any adjustments to this timeline must be approved by the committee chair.

It is recommended that the above steps be completed before the end of the student's 3rd semester in the program such that the defense can occur in the 4th semester.

Master's degree:

The student may optionally choose to submit their candidacy document and oral defense to earn a master's degree from PSU using the same committee. All of the stipulations related to qualifying exam apply with the additional constraint that the student would need to complete additional paperwork to submit their work as a thesis. This includes reformatting the document as a thesis according to Graduate School guidelines, and having the committee members sign off on a thesis document in addition to the advancement to candidacy document. This process may involve revisions to the thesis prior to earning the master's degree, even though the qualifying exam has been approved.

Cognitive Area Comprehensive Exam Procedure - Revised September 2021

Although "The Department of Psychology has no formal structure or procedure for the comprehensive exam" (Graduate Student Guidelines, p. 37), the faculty of the cognitive program have developed procedures to provide consistency in the comprehensive exam for students in the cognitive program. The comprehensive exam process begins with the selection of a dissertation committee. As described in the Guidelines (p. 36), this committee includes at least four faculty members, one of whom must be from a department other than Psychology. After selecting a dissertation committee and being advanced to candidacy, graduate students should follow these steps to complete the comprehensive exam:

1. The student will prepare 10 questions in consultation with the members of the committee. The questions should be distributed over content areas corresponding to the expertise of the committee members (as it is relevant to the particular student's program). The questions should require general knowledge and integration within the domains selected. The distribution of questions over committee members and distribution of content should be worked out by the student and adviser in consultation with other committee members. The role of each committee member in developing questions may vary as appropriate to the student's program and that member's expertise, and that role should be worked out by the student and adviser in consultation with the members of the committee. The scope of each question should be such that it can be answered in not more than 8 typed, double-spaced pages. The student should also develop a brief list of readings central to each question, again in consultation with the committee members. It is recommended that the readings be composed of approximately 10 empirical/theoretical articles and/or chapters (or the equivalent with some variation if the papers are extremely long or short).
2. When the student has agreed on a list of questions and readings with committee members, the complete list will be circulated to the full committee for approval. Upon approval, the comprehensive examination period will begin. The written and oral portions of the comprehensive examination should be scheduled at this time, and the Psychology Records Office notified of the schedule.
3. Within one month after the list of questions is approved or with consultation of the committee, the written examination period will begin. At the beginning of this period, the student will receive a list of questions chosen by the committee from the approved list.

This list of questions will include four questions, distributed over the domains of the committee members' expertise. The written examination period will be one continuous period 10 days in length, counting weekend days and the department's graduate administrator should be consulted to be sure that they are available. During this time, the student will prepare a typed answer to each question, not to exceed 8 double-spaced pages per question. This written test will be "open book" and the writing may be done at times and places to fit the student's convenience. In the event of extraordinary extenuating circumstances that constrain the student from working during the reading or writing period, the student can request a modification of the timing constraints not to exceed a time shift or extension on the order of a few days.

4. Students can allocate this window as they see fit. As a guide for the amount of work that is expected for writing, students should expect to spend the equivalent of 3 full days within this window writing, but more time may be allocated as needed. The student should discuss their planned writing period with their lab PI and with consideration of other semester responsibilities (e.g., TA/RA duties, grading responsibilities, etc.)
5. Within 2 weeks after the written examination period, the committee will meet to conduct the oral portion of the comprehensive exam. At this meeting, the student should be prepared to discuss his or her written answers, the other questions on his or her list, and related topics. The oral exam will take two hours or less, and the result of the exam will be available at the end of the meeting.

3. DEVELOPMENTAL AREA

Training in the Developmental Area will provide students with theoretical and research depth in one or more of the following areas:

- Biological Bases of Development: Genetics, Hormones, Brain Imaging, and Psychophysiology
- Perceptual, Cognitive, Language and Symbolic Development
- Gender Development
- Emotion, Temperament, and Adjustment
- Ecology of Development

Research Training

Training is largely focused on excellence in research and preparation for an academic career. Students will have at least 2 mentors during their tenure in the program. Most students will have a primary mentor and research interest, typically established upon entry into the program. Students in the program are required to work in more than one research lab (i.e., with more than 1 faculty member). Although it would be ideal for students to choose a secondary mentor within the developmental area, this is not required. Students should choose a second mentor (research lab experience) that best fits their interests. We strongly encourage students to be involved in collaborative research that may bridge across the two lab experiences.

Grant Writing. We strongly encourage students to write predoctoral grants. There are a number of different mechanisms for doing this (e.g., NIH NRSA, NSF graduate fellowship, foundation fellowships). The key advantages to writing and obtaining a predoctoral grant are (1) you are able to tailor your training and research to best fit your interests; (2) your funding is secure for (usually) three years after receiving such a grant without the need to teach; (3) receiving such an award demonstrates that you are fundable; and (4) the awards are prestigious and look very good on your CV. There will be a number of training opportunities around grant writing including an occasional formal course and professional development discussions in proseminar. You should begin discussions of grant writing with your advisor(s) as soon as you can.

Research productivity. Students are expected to demonstrate development toward a productive research career through participation in conferences and publication of manuscripts. The level of productivity will vary depending on the nature of the research, training goals of individual faculty mentors, availability of datasets, and the stage of students' training. However, we expect all students to demonstrate dissemination of their research throughout their graduate career. Again, students should address these issues with their research advisors upon arrival into the program.

Research Ethics. As scientists in training, it is important to understand the ethical issues that must be considered when conducting, reporting, and conceiving scientific research.

In conducting a research project, care must be taken to ensure the physical and psychological safety of research participants. All projects must be reviewed and approved by the University's Institutional Review Board before engaging in the research activities. It is also important, especially in conducting research with children, to monitor the well-being of participants while they are engaged in the project and terminate any activities that appear to create undue distress or might result in other harmful outcomes.

Accuracy in the analysis and reporting of scientific research is also of utmost importance.

Science is essentially an honor system that is based on the trust of your colleagues.

Misrepresenting or misreporting the results of your research is a violation of this trust and can not only damage your reputation as a scientist, it can result in other scientists wasting valuable

time and resources in attempts to replicate or follow up on misreported findings. Finally, the ideas and the empirical testing and verification of these ideas are the currency of one's reputation as a scientist. In the conception and reporting of your research, it is important to acknowledge the work of other scientists that have contributed to the area, and it is important not to represent the contributions of other scientists as your own.

Developmental Area Requirements (Pre-Doctoral)

In addition to departmental course and program requirements, the developmental area has outlined a set of requirements that must be completed prior to the commencement of doctoral work (comps and dissertation). These include satisfactory performance in coursework and demonstrating the ability to develop and complete graduate-level research.

1. Coursework

Statistics Courses (at least 6 credits)

Students are required to take a minimum of two statistics classes (e.g., the two-semester stats sequence). Courses other than the standard sequence will also be accepted. Refer to the departmental guidelines for further details.

It is highly recommended that Developmental Area students take courses that are relevant to developmental methods beyond the initial sequence. The Human Development and Family Studies (HDFS) department is an excellent resource for further course offerings and students are encouraged to take as many statistics courses through HDFS as possible. Other departments including Statistics, Educational Psychology and Biobehavioral Health (BBH) also offer highly relevant statistics courses.

Breadth Course Requirement (12 credits)

There are three "breadth" options requiring at least 12 credits taken outside the major area, which are further detailed in the department guidelines. Talk to your advisor and area coordinator for advice on these options.

The Specialization in Cognitive and Affective Neuroscience (SCAN) can count to fulfill this requirement. More information on SCAN can be found at

<https://psych.la.psu.edu/graduate/program-areas/cross-cutting-program-initiatives/specialization-in-cognitive-and-affective-neuroscience>.

Area Course Requirements (15 credits + prosem)

The following courses are required for all Developmental students

- Fundamentals of Social Development (PSY 547)*
- Fundamentals of Cognitive Development (PSY 548)*
- Developmental Theories (PSY 549)*
- One 3-Credit Child Development Seminar (PSY 529, see list below for course offerings) offered by a member of the developmental area faculty (or HDFS faculty); OR another developmental topic course approved by the faculty**
- One additional 500-level course pertaining to developmental research methods or statistics approved by the area faculty. More than one is encouraged.
- Continuous registration in the one-credit Developmental Proseminar (PSY 529)

*These three courses represent the three fundamental courses required for all incoming graduate students in the developmental area. These courses should be completed in Years 1&2.

***PSY 529, or other special topics courses like 511, 597 (new courses offered routinely)*

Gender Development

Developmental Behavior Genetics

Cognitive Development

Developmental Neuroscience

Grant Writing Seminar

Family Relationships across the Lifespan

Temperament (HDFS offering)

Regulatory Processes in Human Development (HDFS offering)

Attachment (HDFS offering)

2. Qualifying Exam

While the developmental area and the department see the Master's thesis as an important milestone in your training, to the Graduate School the key milestone is the qualifying exam. Passing your qualifying exam officially designates that you are ready to proceed with doctoral-level work and you are officially a doctoral candidate. You are not considered a "doctoral student" until you have passed your qualifying exam.

According to the Graduate School, qualifying exam decisions are based on a product that occurs in 3 semesters, and should be completed prior to the third year in graduate school. In the developmental area, the qualifying exam is not a traditional exam or test. Rather, it is a **First Year Project** that involves an original research question, an empirical test of that research question, and a write-up of the results such that there is a tangible research product. This product can be a Master's thesis (which, at your discretion, can be submitted for a Master's degree), a portion of a Master's thesis, or a substantive research project (e.g., a conference poster or paper presentation), at the discretion of the faculty. A major criteria in selecting which type of project is most fitting is that it is feasible and can be completed in the first three semesters of the graduate program.

In order to pass your qualifying exam, you must form a committee of at least two members of the developmental area, and an external member approved by your committee chair. The First Year Project should be an empirical or computational project, meaning that it relies on analysis of data. The data that can be used include data that were collected by others or a meta-analysis, if your committee approves. It is also possible to collect your own data as long as you are able to complete a tangible research project within 3 semesters and your committee approves. Pure theory or review papers *are not* sufficient.

The committee will determine whether a pre-approval meeting (proposal defense) is required. An oral defense of the final project IS required and should occur at the developmental area proseminar, typically during the Fall semester of the student's second year.

Completing the qualifying exam prior to the beginning of the 3rd year will keep you in good standing with the department, area, and graduate school.

3. Master's Thesis and Master's Degree

The Master's thesis is a core research and training process in your first two years in the program.

We expect that all students will propose their Master's thesis by the end of the 1st year in the program and successfully defend no later than the Spring of the 2nd year (i.e., by May). Most students then choose to submit the thesis to the graduate school in order to receive the Master's degree. This last step, however, is at your discretion.

Some students may submit their First Year Project and oral defense as their Master's Thesis using the same committee. The final determination about whether this would be acceptable will be made by the committee. Regardless of whether this is considered acceptable, additional work, including reformatting the document as a thesis according to the Graduate School guidelines, and having the committee members sign off on a thesis document would then be required. This process is likely to involve revisions to the thesis prior to earning a Master's degree.

If you entered the program with a Master's Degree from another institution, you may submit it to your committee for approval as part of the Master's Thesis and degree process at PSU. The committee will determine if, and if so how, your previous work fits into your program of study and research here. In some cases, the committee may accept your Master's thesis from another institution as fulfilling your Master's thesis requirement. In some cases, your Master's thesis may be too disparate from your work in the department (e.g., a thesis in electrical engineering). Here, the student can approach the process with a clean slate, and use the process noted above.

Completing your Master's thesis will keep you in good standing in the area and in the department. In addition, keeping to this timetable will position you to complete the comprehensive exam and defense in the spring of your 3rd year and provide ample time for dissertation research.

Students can find more information on the Master's thesis project in the department handbook and graduate school webpage.

Doctoral Requirements

Once students have completed their qualifying exam requirements, there are two remaining requirements, the comprehensive exam and the dissertation.

1. Comprehensive Exam (Comps) Procedures

The comprehensive exam is comprised of two parts: breadth and depth. We expect that all students will write and defend their comprehensive exam before the beginning of their 4th year. After completing the qualifying exam requirements, students will be ready to work on comps. With the doctoral committee, students will be required to pass a written and oral defense of comps.

1a. Breadth. The breadth aspect of the comprehensive exam will provide an opportunity for students to demonstrate their mastery of the field of developmental psychology as a whole (its core concepts, theories, empirical literatures, methods). In order to demonstrate their understanding of the field of developmental psychology students will be asked to write answers

to **three** of the following questions (randomly selected within category for each student) over the course of a month. Note, the questions listed below are meant to be representative of the types and scope of questions you may be asked. Actual questions may vary slightly in wording and content.

The breadth questions will be graded by the two developmental area faculty on the comps committee plus one additional developmental faculty member not on the comps committee. The results of the grading will be discussed at the defense of the full comprehensive exam and there are no constraints on materials that can be used during the writing.

BREADTH QUESTIONS (Updated 9.18.13)

Theoretical/Conceptual Questions

1. How does a developmental approach to psychology differ from a non-developmental approach? What does it mean to be a developmental psychologist and do developmental science?
2. Describe the origins of one developmental theory/perspective from the list below. Include a (brief) historical overview, evolution of the methods that have been used to examine the theory/perspective, how the theory/perspective has changed over time and/or how the approach to the theory/perspective has changed, and speculate on the future of this theory/perspective.

Below is a list of possible theory/conceptual approaches:

- a. developmental behavior genetics
- b. social learning theory, social-cognitive theory
- c. developmental psychopathology
- d. dynamic systems
- e. developmental neuroscience
- f. ecological theories
- g. constructivist theories

3. How does theory inform our work, guide our questions, and explain development? What is the difference between a theory, an approach, a set of hypotheses? Do we need theories to formulate questions and move the field of developmental psychology forward?
4. There have been a number of extremely influential theories in developmental psychology (e.g., Piaget, Bronfenbrenner). You will be presented with one or more theories and be asked to briefly describe the theory, discuss the strengths and weaknesses, and discuss where there may be controversies, and finally what the theory does a good job at addressing and where it might fall short.
5. Please choose one of the following domains of development (language, emotion, perception, temperament/ personality, cognition, social relationships) and discuss the main contemporary theoretical and conceptual orientations that characterize developmental research in that domain.
6. It is said that the nature/nurture debate is now over. Do you agree? If so, indicate how contemporary thought and empirical work in developmental psychology shows the “truce.” If not, indicate how the debate is still enacted in contemporary thought and empirical work in developmental psychology, and how it might be resolved or refined.

Methods/Approach questions

7. Discuss multiple ways that developmental psychologists look for converging evidence across studies and how we might (or should) use convergence to make inferences about development, and to inform future studies.
8. Discuss the value of an interdisciplinary perspective/approach. Include in this discussion consideration of the types of questions that can best be answered by multiple disciplines and/or are better kept within a single discipline. Are there disadvantages to interdisciplinary research?
9. Consider the advantages and disadvantages of different types of developmental research on the continuum from basic through translational to applied research. Illustrate by choosing a developmental domain and highlight published studies that address a similar question from basic, translational, and applied approaches.
10. Choose 1 domain of development where you think an individual difference approach has been done well and 1 domain of development where you think this approach has been neglected or has been weak. In each domain, discuss some exemplar studies, present an integrative summary across studies, and lay out some new research that should be done and explain what this new research could contribute.
11. What do we learn from an individual differences vs. normative perspective on development? Are there some domains of development where one approach (individual differences or normative) is essential? Are there some domains of development where one approach is not valid or necessary?
12. Cognition/language and social/emotional development are often studied separately, yet there are attempts to bridge this gap. Discuss why the two domains have been studied separately, and the benefits of merging them. Provide an example of research where these aspects of development are bridged successfully.
13. Please describe and give an example of these different developmental designs: cross-sectional, longitudinal, cross-sequential. What inferences can be drawn from each type of design? Compare and contrast the designs. Please write your answer in the context of a specific research question in your area of expertise.
14. It is now common to consider culture in studying developmental phenomena. What is meant by culture? How can culture affect development? Is it possible to do good developmental science without studying culture? Provide an empirical example of each of the following: (a) the ways in which understanding of development is enhanced by consideration of culture and (b) the ways (if any) in which it is reasonable to ignore culture.
15. It is now common to consider culture and genes in studying developmental phenomena. Does this mean that it is now necessary to consider all potential influences on development? What are the reasons to add genes, brain function, and culture to developmental studies? What are the costs of failing to include any or all of genes, brain function, and culture?

1b. Depth. Our belief is that the comprehensive exam provides an opportunity for students to demonstrate their depth of mastery within one or more specialty areas, including links between those specialty areas and the broader field of developmental psychology. The doctoral committee will have flexibility in determining the work that will be required for this portion of comps.

The format for the comprehensive exam for *depth of knowledge* can take many forms and will be determined by the student and his/her committee. Below are a few possible examples:

~Students may generate a small set of potential depth questions (5-6) from which the doctoral committee will select 1-2 for the student to write.

~Students may submit a grant proposal (e.g., NRSA application) as representing depth in area of research.

~Students may write a review paper on particular topic. This paper should be deemed of publication quality.

2. Dissertation

Students can find information about the dissertation project in the department handbook and graduate school web site.

Yearly Evaluation

Goal Setting

Each spring students will submit a list of goals for the upcoming year (these should be turned in with your progress reports). The structure for this is currently open, but should discuss research goals and planned progress toward meeting those goals. These goals should also include proposed coursework and how both research and coursework are setting a course relevant to your future plans.

As part of the spring goal setting, students will be required to work toward an “application ready” version of a research statement. Each year in the program students will submit these statements. Of course, early in students’ careers these will be a challenge to write and we do not expect these to be application ready until the student is ABD. For instance, first year students will be expected to focus on their emerging area of research interests and thesis topic. Faculty will provide constructive feedback for improvement. We believe the process of working on these statements each year will be an important professional development activity. It will also help students think more prospectively and broadly about the impact of their research by helping them to develop a program of research that is cohesive and provide a forum for discussion of links among seemingly diverse research topics. Students in their last year of the program will also be asked to submit a teaching statement since that will also be an integral part of job applications.

Progress Report

Each spring students will submit a report on progress from the previous year (due by middle of April). Through the departmental Qualtrics survey, students will note coursework completed, whether working in two labs has been completed, master’s/dissertation progress, and any presentations or manuscripts completed or in progress. Please also submit your CV and a copy of your in-progress research statement. In addition to uploading this information via Qualtrics, we ask email the CV and research statement as PDF documents via email to the Area Coordinator.

The faculty in the area will meet to discuss each student’s progress. Students will be evaluated on their progress toward the previous year’s goals and progress toward completion of program timeline (e.g., coursework, thesis, comps). We will also solicit input from faculty with whom you’ve worked (i.e., research and teaching). In cases where students are not in good standing, there will be discussion of a lack of progress, plans to remediate, and possible contingencies that may arise if progress is not observed by specified deadlines (e.g., funding decisions).

Students will then receive a letter summarizing the evaluation of progress including strengths and places where improvement could be made. Students are expected to sign the letter, acknowledging that they have read and understood the feedback. The signed original will be placed in the students file (a copy in the graduate training office and a copy in the areas file). These letters are to be completed and in students' files by May 31st of each year.

Summary of Developmental Area Requirements

Required Coursework

Statistics: 6 credits

PSY 507 and 508 or equivalents

Breadth: 12 credits

Courses outside of the developmental area (e.g., SCAN)

Area requirements (15 + credits)

PSY 547: Fundamentals of Social Development

PSY 548: Fundamentals of Cognitive Development

PSY 549: Developmental Theories

PSY 529: Child Development Seminar (topic varies)

500-level methods course (topic and department offering varies)

PSY 529: Developmental Proseminar, every semester

First Year Project

Present in Fall of 2nd year in program to Developmental Proseminar

Qualifying Exam

By end of 2nd year in the program

Master's Thesis (plus oral defense) OR other project (plus oral defense)

Before the beginning of 3rd year in the program

Comprehensive Exam

Before the beginning of the 4th year in the program

4. I/O AREA

The Penn State I/O program also strives for a balance in exposure to personnel (I) and organizational (O) aspects of the discipline. Our goal is to develop students such that they can be effective in all settings: academic, research, industry, and consulting.

A. Coursework

Quantitative Methods. All graduate students are required to take the following courses:

- PSY 507: Data Analysis I
- PSY 508: Data Analysis II
- PSY 535: Research Methods
- PSY 597: Advanced Statistics

I/O Content (2 survey, 2 depth, practicum)

Survey of I/O. All graduate students are required to take two survey courses, one representing the Industrial side of the field and the other representing the Organizational side of the field. Both should be taken in the student's first year of study.

PSY 522: Survey of I

PSY 523: Survey of O

Depth Topics in I/O. All graduate students are required to take 15 additional credits of depth topics.

PSY 538 Depth I (examples: Selection, Counterproductive Work Behaviors, Personality, Creativity & Innovation, and Customer Service)

PSY 537 Depth O (Examples: Motivation and Emotion, Groups and Teams, Leadership)

597 "Wild Card" (any I, O, or Statistics course of interest)

I/O Practicum. All graduate students are required to be enrolled in the I/O Practicum course (PSY 534) for six consecutive semesters beginning with the first year in the program. First-year students are enrolled in the practicum, but have reduced involvement in and responsibility for practicum projects.

Additional Courses. All graduate students are required to take one 500-level courses. That course may be within psychology broadly, within I/O psychology specifically, or outside of the area. The primary criteria guiding course selection is that the course contributes to the career goals of the student and is guided by input by the students primary advisor.

Breadth Requirement. I/O students have three options for completing the Department's Breadth Requirement:

- 1) *Departmental Breadth (option C).* I/O students can take a minimum of 12 psychology credits, including one course in each of the Department's four program areas outside of I/O (clinical, cognitive, developmental, and social). In order to assure achievement of breadth of knowledge of psychology outside of I/O, the courses selected must be disciplinary, content based courses that represent clinical, cognitive, developmental, and social domains.
 - Note that the I-O program strongly encourages you to take 500-level courses to satisfy any of the Department's breadth requirement options, but some 400-level courses may be used if approved by your advisor.
- 2) *Minor Specialization.* I/O students can develop a specialization in an area of psychology (but outside of I/O), or an area outside of psychology (e.g., management, HDFS). This option involves selecting an advisor, completion of coursework, and a research project.

- A total of 12 credits is needed, usually 9 credits of coursework plus 3 credits of independent study with the specialization advisor.
 - A project of some type (empirical study, theoretical development paper, literature review) must be completed as part of the comprehensive oral exam.
 - In addition to the 12 credits to complete a minor specialization, I/O students must take an additional 3 credits that may be from a range of content areas, including within I/O Psychology, Psychology broadly, or outside of Psychology (e.g., management).
- 3) *Official External Minor*. Although the first three options listed above constitute area and departmental breadth requirements, students may also elect to complete an “official” doctoral minor in a specific graduate program outside of psychology (<http://gradschool.psu.edu/forms-and-documents/ges-owned-forms-and-documents/addgrminorpdf/>). Interested students should contact the graduate administrative assistant and/or graduate coordinator of the program in which they are interested in pursuing a minor for further information.
- Official **doctoral minors require a minimum of 15 credits with at least six of those credits at the 500-level or higher.**
 - In addition to the 15 credits to complete an external minor, I/O students must take an additional 3 credits that may be from a range of content areas, including within I/O Psychology, Psychology broadly, or outside of Psychology (e.g., management).

B. MASTERS THESIS Requirements in I/O

- Form the master’s committee by the summer of year 1
- Orally propose the written thesis proposal by the beginning of the fall semester of year 2
 - At this meeting, special attention will be given to the content and scope of the project to ensure that it is feasible to complete the thesis by the end of the spring semester of the student’s second year. Be sure to inform the Graduate Staff Assistant (Sherri) when this step is complete.
- Orally defend the thesis before the Master’s committee by the end of the spring semester of year 2
 - At this meeting, the committee makes the decision of whether to advance the student to candidacy, determining the student’s capability for doctoral-level work in I/O.
 - Note that failure to successfully defend the Master’s thesis by the end of summer semester of the second year constitutes poor standing in the I/O area and the department.
- It is highly recommended that students complete thesis revisions, format the thesis according to Graduate School guidelines, and submit the thesis to the Graduate School in order to earn a Master’s degree.

C. Comprehensive Exams in I/O. Passing the comprehensive exam – and moving to the doctoral dissertation stage - involves multiple hurdles. These are:

1. **Breadth of knowledge:** Complete written comp exam showing breadth and ability to communicate knowledge and issues using compelling and on-target evidence
2. **Depth in an area:** Submit a 5-8 page paper in one specific topic area of interest (typically dissertation pre-proposal).
3. **Orals:** Pass the oral defense of exam *and* discuss depth paper with committee
4. **Submit an article for peer review:** An important part of science is experience with peer review processes at journals. Prior to taking the comp exam, you must have submitted for peer review a

manuscript *for which you have had the primary responsibility of writing*: your thesis project, or a theoretical paper from a class, a *I-O Perspectives* essay or book chapter (if peer reviewed), a grant submission or response to calls for proposals (if necessary for your work)

Action Steps for Comps

1. Planning Comps

- a. Discuss with advisor to ensure you have completed required coursework, practicum, and submitted an article for peer-reviewed publication by end of comps
- b. Form dissertation committee, which serves as your comp exam committee [Minimum 4: your advisor, 2 psych (I/O or other) and 1 external to psych].
- c. *Complete the I/O Competencies Checklist* (see p. 3 and submit to advisor)
- d. Discuss your initial idea for a depth paper (dissertation or other paper) with your advisor.

2. Schedule comp exam

- a. Discuss written exam timing with the exam cohort. The exam can be taken around November, April, or August. All comp exam-takers must take the written exam on the same day, in the same format (1 day or 2 half days) to standardize the exam.
- b. Arrange oral exam with your doctoral committee, falling 2-3 weeks after the written exam.
- c. Schedule both exams with Sherri Gilliland (sbg4@psu.edu) and obtain paperwork

3. Take written exam

- a. **Procedure.** You have a total of 24 hours (i.e., 12 hours on 2 days) to answer 6 questions (3 per 12 hour period). In order to maximize your comfort and success, you can choose your location and your starting time (between 8 to noon) with 12 hours (e.g., 9pm) from that time to submit your first 3 written responses to Sherri. This repeats the next day. The exam will be *open-book*, such that students can rely on internet sources, reference managers, course notes and syllabi, and other resources to respond to the questions.
- b. **Format.** I-O and methods questions are generated each year by ALL I/O faculty but your final set of comp exam questions are selected by a sub-set of faculty, including your committee chair. Your advisor will may opt to give the test taker 1-2 personalized questions (based on minor area, or specialization). You will receive a set of 10 questions and choose 6 to answer total. The questions will be in the area of General I/O, O, I, and Methods, and broad and integrative across topic areas. Each essay should be typed and double-spaced, and are typically around 6 pages (no more than 8!). In-text citations needed; a full reference list is appreciated though not required.
- c. **Evaluation & feedback.** You are being evaluated on your ability write a response that draws on existing theory and evidence, demonstrating critical thinking and analyze and synthesize that body of work in a coherent way. These are important skills for academic and practitioners. The committee will provide written feedback about your comp exam questions prior to the oral defense (ideally 5-7 days prior). The feedback may involve (a) concerns about specific areas of knowledge such that remediation is needed at the oral, or (b) general thoughts to consider and to discuss at the meeting. Use the feedback to prepare but keep in mind that other questions may arise at the oral comp.

4. Submit dissertation pre-proposal (also referred to as the “depth” paper)

- a. **Purpose:** To demonstrate depth of knowledge in an area, and to move you toward the dissertation (or another novel paper) effectively and efficiently by getting feedback from your committee at this stage.

- b. Content:** Within 5 days before your oral defense, submit to your committee a 5-page paper that identifies a gap, problem or controversy that you plan to address with a more complete depth paper and inquiry (i.e., the dissertation). Provide an overview of this topic and what is known, and then what is unknown and why this is important and interesting to know. Provide some basic idea about how (i.e., new theoretical model, research methods) you will pursue this knowledge in novel ways that make a contribution theoretically, empirically, and/or practically.

5. Defend exam and paper orally

- a. Purpose.** The oral gives you a chance to explain or justify unclear written responses in your written exam, or remediate knowledge based on feedback. It also gives you practice “thinking on your feet” and furthers development as an independent scholar.
- b. Evaluation.** Once all committee questions are answered, the student will step out of the room for the committee to render a decision about passing comps. This decision is based on the ability to speak coherently about the written responses, demonstrating knowledge even without the presence of online resources and ability to think and form informed opinions about I/O topics and issues guided by research.
- c. Dissertation pre-proposal (aka, “depth” paper) discussion.** Upon return, the committee will ask questions and offer feedback about the depth paper proposal to guide the dissertation process. If the comp exam answers require some remediation, the committee can opt to delay discussion of the depth paper and focus on remediation steps.

D. Conduct Dissertation in I/O in your fifth year.

5. SOCIAL AREA

Major Requirement Graduate students in Social Psychology are required to complete three core courses in order to assure a base and breadth of training. Students must also select three additional courses in Social Psychology; these should be chosen in consultation with a student's advisor and should reflect specialized interests and career plans. The courses are described in more detail below.

Core Courses

- Introduction to Advanced Social Psychology (PSY 517) taught by social faculty
- The Art and Science of Social Psychology (PSY 571)
- Designing Research in Social Psychology (PSY 583)

Introduction to Advanced Social Psychology provides historical background and an overview of topics in social psychology at the graduate level and introduces students to important contemporary topics and controversies within social psychology. The Art and Science of Social Psychology fosters students' development of needed professional skill sets – including ethics, history, data analysis, writing -- and provides a platform for the development and initiation of independent research and research collaboration with other students. The Designing Research in Social Psychology course, in combination with the department requirement for statistics, provides students with an overview of methodologies and issues to consider in developing and conducting research, along with specific methodological skills.

Additional Courses. Students also need to develop a breadth of knowledge about several topic areas in social psychology. Students should take three additional advanced level courses in social psychology. The courses selected should reflect the special needs and interest of each graduate student. Reflection upon one's interest and consultation with one's advisor should guide selection of these additional courses. Any graduate (500 level) course taught by a social psychologist in our department can serve this requirement. Courses taught by social psychologists in other departments do not satisfy this requirement, but such courses can be used for breadth requirements. Independent study courses will not count toward the major requirement without special (written) permission from one's advisor.

Breadth Requirement (12 credits in areas outside the major area). The goal of the breadth requirement is to supplement students' training in the social psychological area(s) of particular interest to them. These courses should be helpful and meaningful to your plan of study. In most cases, students should think of this course work as similar to forming a minor. Coursework for the breadth requirement can come from a single other area of psychology (e.g., Industrial-Organizational Psychology) or a single other department (e.g., Sociology), can involve courses with a topical focus that cuts across areas and departments (e.g., courses about emotion in Clinical Psychology, Psychophysiology, and Human Development and Family Studies), or be a formal minor offered through another department (e.g., graduate minor or dual-title degree in Women's, Gender, and Sexuality Studies). Breadth courses are not required to constitute a formal minor; these courses should not be a haphazard selection, but one that is thoughtfully chosen in light of the student's professional plans.

In all cases, the student should develop a plan early in their graduate training (end of the first year) as to the type of courses they wish to take for the breadth requirement. The plan should note whether they are taking an approach akin to a minor. If the plan is to take a variety of courses, the plan needs to indicate the logic behind the variety of courses they are selecting. This planning should be done in consultation with one's advisor. The plan must be submitted in written form with the student's end-of-year report to the psychology advising office. The plan can be revised over the course of one's graduate training, but the justification for any changes should be made explicit.

Any 500-level course may count for this requirement; 400-level courses will only count with justification and special (written) permission by one's advisor. Up to 6 independent study credits may count toward this requirement. A brief written description of the nature of the independent study work must be provided to the student's advisor. When the independent study credits involve research projects, a final paper summarizing the research should be completed.

Statistics Requirement (6 credits within the first 2 years). At a minimum, required statistics courses should give in-depth knowledge of analysis of variance and regression. We recommend that students take additional courses on multivariate statistics. This includes courses on factor analysis, structural equation modeling, and hierarchical linear modeling. Specific course selection should be discussed with the student's advisor.

Weekly Proseminar. Students are required to attend the weekly social psychology area proseminar and present annually. The proseminar allows students to practice giving presentations on their research and learn to engage in scholarly discussion about the work of others (in the area and the department and from guest speakers).

Qualifying Exam to Advance to Doctoral Candidacy

Written Summary of a Scientific Project: This project will serve as the “equivalent” of a thesis.

- **End of Year 1/Beginning of Year 2**
 - Form Committee: 3 Psychology faculty (2 social, 1 outside social)
 - Proposal
 - Presentation at prosem,
 - A 1-2 page prospectus circulated for the committee to approve, OR
 - A research talk to committee members, with or without written proposal
- **By the End of Year 2**
 - The written summary of a scientific project will be circulated to the committee at least two weeks before a defense meeting is scheduled.
 - **Defense Meeting:** Held no later than the end of the spring semester.
 - **Advancement:** Occurs at the time the defense paperwork is filed as “pass”.
- **The Written Document**
 - **Format:** A paper ready for submission to a scientific journal. Submission and ultimate publication are encouraged, but not required.
 - **Content:** A write-up of empirical research
 - To receive masters, students must format and submit to college. Not required.

Comprehensive Examination

- **Beginning of Year 3**
 - Form Committee: 4 Psychology faculty and 1 external faculty member
 - Students should discuss with their adviser what version of comprehensive exams they should complete. They can elect one of 3 different options:
 - Classic comprehensive examination – students will receive questions about history, methods, general social psychology, and the student's specialization. Contact area head for description and procedures.
 - Course comprehensive examination – students will receive questions based on their course work. Contact area head for description and procedures.
 - Project examination – students write a 1-2 page project proposal that must be submitted to the social area faculty for approval. These projects can take a variety of forms, most typically a review paper, meta-analysis, or large grant proposal.
- **By the End of Year 3/prior to start of Year 4**

- The written summary of a scientific project will be circulated to the committee at least two weeks before a defense meeting is scheduled.
- **Defense Meeting:** Held no later than the end of the July prior to start of year 4.
- **The Written Document**
 - **Format:** Essay responses, a paper ready for submission, or grant proposal.
 - **Content:**
 - A theoretical review paper or meta-analysis. Submission and ultimate publication are encouraged, but not required
 - Large grant proposal or grant portfolio. Submission required.

APPENDIX B: SPECIALIZATIONS & DUAL-TITLE PROGRAMS

1. SPECIALIZATION IN COGNITIVE & AFFECTIVE NEUROSCIENCE (SCAN)

The goal of the specialization in Cognitive and Affective Neuroscience (SCAN) is to prepare students for neuroscience-related careers. Towards that end, students will be required to complete several courses and participate in neuroscience-related research, as described below. Meeting the SCAN requirements automatically meets the Department's breadth/minor requirement. If the two semesters of SCAN-related research are conducted with someone other than the student's primary advisor, then the Department-level requirement to work with at least two faculty members is also met.

Course Requirements. The student should complete, by the end of the second year, the following courses:

Foundations of Cognitive and Affective Neuroscience (PSY 511, 3 credits)

Methods of Cognitive and Affective Neuroscience (aka SCAN Methods; PSY 511, 3 credits)

Students will also be required to participate in at least two additional topical seminars

Seminar in Contemporary Psychology (PSY 511, 1-9 per semester, maximum of 12)

Seminar in Cognitive Psychology (PSY 525, 3 per semester, maximum of 12)

Seminar in Child Development (PSY 529, HDFS, 1-6 credits)

Seminar in Social Psychology (PSY 571, 3-9 credits)

Neuropsychological Assessment (PSY 556, 3 credits)

Comparative Neuroanatomy (NEURO 512, 4 credits)

Systems Neuroscience (NEURO 521, 3 credits)

Research and comprehensive exam requirements. The student must complete two semesters of SCAN-related research, preferably spending at least one semester with someone other than the primary advisor. A member of the SCAN psychology faculty should be on the student's comprehensive committee and on the student's dissertation committee.

Other activities. All students in SCAN are also expected to participate in program seminars.

Application process. Students who wish to participate in SCAN should file an application (available from the Graduate Staff Assistant or as a downloadable pdf at the department website). The application should be approved by the student's advisor and the SCAN coordinator.

2. DUAL-TITLE PHD IN WOMEN'S, GENDER, AND SEXUALITY STUDIES (WGSS) & PSYCHOLOGY

Penn State Psychology is one of only two graduate programs in the U.S. to offer a dual degree Ph.D. in WGSS and Psychology. Graduate students also have the option of a graduate minor in WGSS. Students in the dual-title degree program receive the Ph.D. in *WGSS and Psychology*. Psychology requirements are the same, the difference is that dual-degree students also take WGSS required classes and incorporate WGSS theories and perspectives into their research. There are also requirements for the qualifying exam, and dissertation, as well as composition of the candidate's committee.

How to apply: Students may apply to WGSS for admission to the dual-degree program after acceptance into the Psychology program. The WGSS Department determines whether to admit the student. The student must declare the dual degree and must have a committee to reflect this (e.g., appropriate membership) by the time of Advancement to Candidacy. With careful planning, completion of the dual degree in WGSS and Psychology does not have to add time to degree. More information about applying can be found on the WGSS website: <https://wgss.la.psu.edu/graduate/degree-programs>.

Psychology Requirements

- 18 credits in psychology area (Clinical, Cognitive, Developmental, I/O, or Social)
- English language and SARI ethics requirement (PSY501 and scheduled SARI seminars)
- 6 credit stats sequence (PSY507 and PSY508)
- Master's thesis or Approved Alternative (see Psychology Area Guidelines)
- Research with 2 or more faculty advisors
- Dissertation
- Clinical students must also complete Clinical Area graduate requirements

WGSS Requirements

- Feminist Theory (WMNST 507); Global Feminisms (WMNST 502); Feminist Methods (WMNST 508) *or* Feminist Pedagogy (WMNST 509)
- 9 additional credits WGSS course work (minor research credits and certain seminars in Psychology may count toward both Psychology and WGSS degree requirements with approval)

Other Requirements:

Note that the WGSS dual-title degree coursework fulfils the Breadth requirements (option B, minor specialization) for the Psychology Department and can fulfil the requirement to work with two different faculty advisors. The masters' project committee must be comprised of at least three faculty members, two from the student's area in psychology and one from a different area within psychology or outside the department. At least one member of the thesis committee and two of the PhD dissertation committee must be a core or affiliate member of the WGSS faculty. These members are responsible for seeing that a portion of the student's comprehensive exam focuses on feminist theory and methods, global feminism, and feminist studies in the student's discipline. Research for the master's thesis and doctoral dissertation must be relevant to WGSS. The committee chair must be in both Psychology and WGSS (affiliate or budgeted). If not, then a co-chair needs to be appointed.

WGSS Graduate Minor Requirements (Option B for Breadth)

The WGSS graduate minor is available for any psychology graduate student who is interested in incorporating WGSS into their research, teaching, and practice in psychology, but who cannot undertake the dual degree. Requirements are as follows (total = 12 credits):

- Feminist Theory (WMNST 507); Global Feminisms (WMNST 502); Feminist Methods (WMNST 508) *or* Feminist Pedagogy (WMNST 509)

- 3 additional credits in WGSS (qualifying seminars in Psychology count toward both degree requirements)

3. DUAL-TITLE PHD IN LANGUAGE SCIENCE & PSYCHOLOGY

Students electing this degree program earn a degree with a dual- title at the Ph.D. level in Psychology and Language Science.

Program Objectives of the Dual-Title Degree in Language Science. A dual-title degree program in participating programs and Language Science will prepare students to combine the theoretical and methodological approaches of several disciplines in order to contribute to research in the rapidly growing area of Language Science. This inherently interdisciplinary field draws on linguistics, psychology, speech-language pathology, and cognitive neuroscience, as well as other disciplines, to address both basic and applied research questions in such areas as first and second language acquisition, developmental and acquired language disorders, literacy, and language pedagogy. Dual-title degree students will receive interdisciplinary training that will enable them to communicate and collaborate productively with a wide range of colleagues across traditional discipline boundaries. Such training will open up new employment opportunities for students and give them the tools to foster a thriving interdisciplinary culture in their own future students. The dual-title program will facilitate the formation of a cross-disciplinary network of peers for participating students as part of their professional development.

Admissions Requirements. To pursue a dual-title degree under this program, the student must first apply to the Graduate School and be admitted through one of the participating graduate degree programs (see Appendix E for admissions requirements of potential participating programs). Upon admission to one of the above programs and with a recommendation from a Language Science program faculty member in that department, the student's application will be forwarded to a committee that will include the Director of the Linguistics Program, one of the Co-Directors of the Center for Language Science, and a third elected faculty member within the Center for Language Science. All three committee members will be affiliated with the Program in Linguistics. Upon the recommendation of this committee, the student will be admitted to the dual-title degree program in Language Science.

Doctoral Degree Requirements. The dual-title Ph.D. degree in Language Science will have the following requirements.

1. Course work (21 credits of 500-level courses)
6 credits, Proseminar in the Language Science of Bilingualism (LING 521), Proseminar in Professional Issues in Language Science (LING 522)
3 credits, Research methods/statistics in Language Science (such as LING 525, PSY 507, PSY 508)
3 credits in theoretical linguistics (students will choose between LING 500 or LING 504)
3 credits, Cognitive Neuroscience or Psycholinguistics (such as PSY/LING 520, PSY 511)
6 credits, Research internships (students will choose one course among the following: CSD 596, GER 596, LING 596, PSY 596, SPAN 596)
2. Language Science Research Meetings
Students must participate in weekly Language Science Research meetings each semester in residence.
3. Foreign Language and English Competency Requirements
The student will fulfill the language requirement specified by the participating department through which the student is admitted to the dual-title degree program.

4. Candidacy Examination

In order to be admitted to doctoral candidacy in the dual-title degree program, students will take a candidacy examination that is administered by the primary program. However, the dual-title degree student may require an additional semester or more to fulfill requirements for the primary program and dual-title program; therefore, the candidacy examination may be delayed. In addition, the student will be required to present a portfolio of work in Language Science to their committee. Such a portfolio would include a statement of the student's interdisciplinary research interests, a plan of future study, and samples of writing that indicate the student's work in Language Science. The candidacy examination committee will be composed of faculty from the primary program, as well as at least one faculty member affiliated with Language Science. The designated Language Science faculty member may be appointed in the student's primary program, but he or she may also hold a formal appointment with Linguistics. The Language Science member will participate in constructing and grading candidacy examination questions in the area of Language Science.

5. Doctoral Committee Composition

A doctoral committee consisting of at least four members of the Graduate Faculty must be appointed and will include a representative of the Language Science dual-title program. In addition, an official "outside member" must be appointed as one of the four members. The student's doctoral committee will include faculty from the primary program as well as faculty from Language Science. Faculty members who hold appointments in both the primary program and Language Science may serve in a combined role.

6. Comprehensive Examination

The student's doctoral committee will include faculty from the primary program as well as faculty from Language Science. Faculty members who hold appointments in both the primary program and Language Science may serve in a combined role. The Language Science representative(s) will help to ensure that the field of Language Science is integrated into the comprehensive examination.

7. Dissertation

A dissertation on a topic related to Language Science is required for a dual-title Ph.D. degree in Language Science.

Linguistics Minor. The doctoral minor provides interested students with an opportunity to complete a program of scientific study focused on the nature, structure, and use of human language. The minor is designed to cover the foundations of the discipline of linguistics by reviewing fundamental core areas such as phonology and syntax. Course work is also available in many additional areas of linguistics such as semantics, morphology, language variation, historical linguistics, and discourse analysis.

The minor requires a minimum of 15 credits, 6 of which must be at the 500 level. Nine credits are prescribed in syntax (LING 400), phonology (LING 404), and a general introduction to linguistics (LING 401), although a linguistics course at the 500 level may be substituted for LING 401 with the approval of the director of the program in Linguistics.

4. DUAL-TITLE PHD IN SOCIAL BEHAVIORAL NEUROSCIENCE (SBN) & PSYCHOLOGY

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Beginning in Fall of 2019 students will be able to pursue a new dual title in Social Behavioral Neuroscience. Social behavioral neuroscience reflects the study of how brain development and function influence, and are influenced by, social environments and human interaction. The dual-title Ph.D. program provides students with additional training in the neurobiological foundations of brain function in order to enable them to pursue innovative interdisciplinary research with intellectual sophistication. Social Behavioral Neuroscience (SBN) represents a sub-domain within the Neuroscience discipline focusing on the relation between brain and cognition and behavior. As such, SBN seeks to connect at least two levels of analysis. Research that is solely restricted to a single level of analysis is not considered to fit within the SBN framework regardless of whether the single level is behavioral (e.g. examining cognitive task performance among individuals with Alzheimer's) or biological (e.g. examining the regenerative properties of neurons). Although each domain can have clear implications for the other, the SBN framework seeks to explicitly examine the associations between them.

The Social and Behavioral Neuroscience dual-title degree program is administered by the Social and Behavioral Neuroscience Steering Committee, which is responsible for the management of the program. The committee oversees the general direction of the program, identifies faculty and courses appropriate to the program, recommends policy and procedures for the program's operation to the Dean of the Graduate School, and is an advisory body to the program Director. The program enables students from participating graduate programs to obtain foundational graduate-level training in neuroscience as well as expertise in social and behavioral neuroscience theory, research, and methods. This dual-title training will enable rigorous research at the intersection of neuroscience and the students' partner discipline. To pursue a dual-title degree under this program the student must apply to the Graduate School and register through one of the approved graduate programs.

Admission to the Dual-Title

Before they can apply for admission to the dual-title degree program, students must apply and be admitted to a primary graduate program with a formal affiliation to the dual-title, as well as to the Graduate School. The following graduate programs offer a dual degree in Social and Behavioral Neuroscience:

Biobehavioral Health, Human Development and Family Studies and Psychology.

Students may apply for enrollment in the dual-title degree program during their first year (second semester) or second year in their primary graduate program. Students must be admitted into the dual-title degree program prior to taking the qualifying exam. Students can be enrolled in any of the program areas within psychology: Clinical, cognitive, developmental, industrial/organizational, and social.

To apply, students should submit (1) a completed application form, (2) graduate and undergraduate transcripts, and (3) a letter of recommendation from their graduate adviser to the Psychology department member of the SBN Steering Committee.

Degree Requirements

Coursework:

All coursework requirements indicated below are in addition to the courses required in psychology. Students are encouraged to discuss their course planning with their advisor and the SBN coordinator in psychology in order to establish the most efficient path to fulfilling degree requirements. Students are permitted to take any of the required courses, including the SBN 590 seminar series, prior to declaring the dual-title, and may wish to do so as part of the process of deciding whether the dual-title is right for them.

The minimum course work requirements for the dual-title Ph.D. degree are as follows:

- NEURO 520 (3 credits)
- NEURO 511 (3 credits) *or* NEURO 512 (4 credits) *or* BIOL 478 (3 credits)
- SBN 590 (1 credit, taken twice)
- A minimum of 12 credits of approved SBN electives

Approved Electives

- NEURO 521 (3 credits)
- HDFS 502: Biological Systems in Developmental Context
- HDFS 512: Cognitive Developmental Neuroscience of Adolescence
- PSY 524: Biological Basis of Behavior
- SBN 505 (3 credits, variable)
- SBN 508 (3 credits, variable)
- SBN 511 (3 credits, variable)

Courses offered under the 597 designation, or courses with a permanent course number but which may or may not fulfill the SBN objectives depending on the instructor offering the course in a given semester, can be approved on a case-by-case basis. Students requesting to have a course approved as counting toward the elective requirement should submit the syllabus to the psychology department coordinator. Requests will be reviewed by the Steering Committee or its designee.

Sample programs of coursework can be found at the bottom.

Qualifying Research

In addition to the coursework criteria, students pursuing the dual-title must conduct dissertation research that meets the expectations of the program. Because SBN seeks to understand the associations between brain and behavior, SBN research must include a measure that has been determined to validly index and/or impact brain function, and must be explicit in how this measure contributes to our understanding

of brain function. Examples can include measurement of electrical potentials at the scalp surface (EEG/ERP), cerebral changes in blood oxygenation or glucose utilization (fMRI, PET), structural anatomy of the brain (MRI, DTI), function of peripheral organs innervated by cranial nerves (heart, facial muscles), peripheral indices of central nervous system function (skin conductance, neuroendocrine measures such as cortisol), exogenously administered psychoactive medications (e.g. therapeutic or non-therapeutic substances), and variations in the genome and/or epigenome with biologically mapped implications for brain function. Measures of peripheral organ activity that are not mapped to central nervous system function (e.g. venous plethysmography, peripheral muscular control, spinal reflexes) are not sufficient. Techniques that use behavior to assume biological functionality (e.g. neuropsychological testing, behavioral genetics) are also not sufficient.

Committee Composition and Exam Format

Qualifying Examination Committee Composition

The qualifying examination committee must conform to all requirements of the graduate program in psychology and the Graduate Council. In accordance with Graduate Council, [the qualifying examination committee](#) must include at least one member of the SBN Graduate Faculty.

Qualifying Exam

The dual-title degree will be guided by the Qualifying Exam procedure of the graduate program in psychology and the Graduate Council. The dual-title program defers to the primary program with regard to the format, structure and timing of the Qualifying Exam, as well as the discretion of the SBN representative to determine the appropriate exam content. Because students must first be admitted to a primary graduate program of study before they may apply to and be considered for admission into SBN, dual-title graduate degree students may require an additional semester to fulfill requirements for both areas of study and, therefore, the Graduate School permits the qualifying examination to be delayed up to one semester beyond [the normal period allowable](#).

Ph.D. Committee Composition

The Ph.D. committee must conform to all requirements of the primary graduate program and the Graduate Council. In addition to the [general Graduate Council requirements for Ph.D. committees](#), the Ph.D. committee of an SBN student must include at least one member of the SBN Graduate Faculty. If the chair of the Ph.D. committee is not also a member of the Graduate Faculty in Social and Behavioral Neuroscience, a member of the committee representing SBN must be appointed as co-chair.

Comprehensive Exam

The dual-title degree will be guided by the Comprehensive Exam procedure of the graduate program in psychology. After completion of required course work, SBN students must pass a comprehensive examination. In programs where this includes evaluation of a written exam, the SBN representative on the student's Ph.D. committee will participate in the writing and evaluation of the exam, in accordance with procedures maintained by the primary graduate program. In programs where the comprehensive exam involves defense of a dissertation prospectus, the SBN representative on the student's Ph.D. committee will participate in the evaluation of the prospectus, including ensuring the proposed dissertation has substantial SBN content.

Dissertation and Dissertation Defense

Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in their

primary graduate discipline and in SBN. The dissertation must be accepted by the Ph.D. committee, the heads of both graduate programs, and the Graduate School.

Table 2. Illustrative Path Through the Dual-Title Ph.D.

| Course | Credits | PSY | SBN |
|--|---------|-------------|-----------|
| Year 1 Fall (Semester 1) | | | |
| PSY 501: Seminar in General Psychology | 1 | CORE | |
| PSY 549: Developmental Theory | 3 | AREA | |
| PSY 507: Analysis of Psych. Data I | 3 | CORE (STAT) | |
| PSY 529: Seminar in Child Dev. (Dev. Proseminar) | 1 | AREA | |
| PSY 600: Thesis Research | 1 | | |
| Year 1 Spring (Semester 2) | | | |
| PSY 548: Fundamentals of Cognitive Development | 3 | AREA | |
| PSY 508: Analysis of Psych. Data II | 3 | CORE (STAT) | |
| PSY 529: Seminar in Child Dev. (Dev. Proseminar) | 1 | AREA | |
| PSY 600: Thesis Research | 1 | | |
| Year 2 Fall (Semester 3) | | | |
| PSY 547: Fundamentals of Social Development | 3 | AREA | |
| NEURO 520: Social and Behavioral Neuroscience I | 3 | BREADTH | Core |
| SBN 590: Proseminar in Social and Behavioral Neuroscience | 1 | | Core |
| PSY 529: Seminar in Child Dev. (Dev. Proseminar) | 1 | AREA | |
| PSY 600: Thesis Research | 2 | | |
| Year 2 Spring (Semester 4) | | | |
| PSY 529: Seminar in Child Dev. (Dev. Proseminar) | 1 | AREA | |
| NEURO 521: Social and Behavioral Neuroscience II | 3 | BREADTH | Core |
| SBN 506: Seminar in SBN (developmental section) | 3 | AREA | REQ |
| SBN 590: Proseminar in Social and Behavioral | 1 | | Core |
| PSY 600: <i>M.S. Thesis or Alternative Project defense</i> | 2 | | |
| Year 3 | | | |
| SBN 511: Translational Applications of SBN | 3 | BREADTH | REQ |
| SBN 506: Seminar in SBN (another dev. section) | 3 | AREA | REQ |
| SBN 508: Seminar in SBN Methods | 3 | BREADTH | REQ |
| <i>Advancement to Candidacy if not before</i> | | | |
| Year 4 | | | |
| PSY 601: Ph.D. Dissertation | 9/sem | | |
| <i>Comprehensive Exam</i> | | | |
| Year 5 | | | |
| PSY 601: Ph.D. Dissertation | 9/sem | | |
| <i>Dissertation defense</i> | | | |
| Total credits required by program (excluding 600/601) | | 43 | 20 |
| Unique credits required by program (does not double count) | | 25 | 2 |
| Total course credits completed by student (not including | | 45 | |

- *Core* = course required of all students to complete the degree
- *REQ* = credit requirement toward degree, with flexibility in specific course
- AREA=PSY, 15 credit requirement in program area
- BREADTH=PSY, 12 credit breadth requirement

5. DUAL-TITLE PHD IN SOCIAL DATA ANALYTICS (SODA) & PSYCHOLOGY

Social Data Analytics Department Representative

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Overview

Psychology doctoral students interested in having a degree that reflects interdisciplinary training in an array of statistical tools, techniques, and methodologies for social data analytics, while maintaining a close association with psychology, may apply to pursue a dual-title Ph.D. in Psychology and Social Data Analytics.

Social data analytics is the integration of social scientific, computational, informational, statistical, and visual analytic approaches to the analysis of large or complex data that arise from human interaction. The dual-title Ph.D. program provides additional training with the aim of providing scientists with the skills required to expand the field of social data analytics, creatively answer important social scientific questions, and communicate effectively with both academic and nonacademic audiences.

The Social Data Analytics dual-title degree program is administered by the Social Data Analytics Committee, which is responsible for the management of the program. The committee maintains program definition, identifies faculty and courses appropriate to the program, and recommends policy and procedures for its operation to the Dean of the Graduate School. The program enables students from diverse graduate programs to attain and be identified with an interdisciplinary array of tools, techniques, and methodologies for social data analytics, while maintaining a close association with a home discipline. Social data analytics is the integration of social scientific, computational, informational, statistical, and visual analytic approaches to the analysis of large or complex data that arise from human interaction. To pursue a dual-title degree under this program the student must apply to the Graduate School and register through one of the approved graduate programs.

Admission to the Dual-Title

Students must apply and be admitted to the graduate program in their primary graduate program and The Graduate School before they can apply for admission to the dual-title degree program. Applicants interested in the dual-title degree program may make their interest in the program known on their applications to the primary graduate program and include remarks in their statement of purpose that address the ways in which their research and professional goals in their chosen primary field reflect an expanded interest in Social Data Analytics.

To be enrolled in the dual-title doctoral degree program in Social Data Analytics, a student must submit a [completed application form](#) and transcript, which will be reviewed by the interdisciplinary Social Data Analytics Admissions Committee. An applicant must have a minimum grade point average of 3.0 (on a 4-point scale) to be considered for enrollment in the dual-title degree program.

Prospective students are advised to speak with the SoDA Director of Graduate Studies (Bruce Desmarais) about the program prior to submitting their completed application.

Applications are accepted on a rolling basis. Since required coursework in the SoDA program begins in the fourth semester of graduate school, students should submit their applications during or before their third semesters at Penn State. Students must be admitted into the dual-title degree program in Social Data Analytics *no later than the end of the fourth semester* of entry into the primary Ph.D. program (not counting summer semesters) and before taking the comprehensive exam.

Degree Requirements

To qualify for the dual-title degree, students must satisfy the requirements of the primary graduate program in which they are enrolled. In addition, they must satisfy the requirements described below, as established by the Social Data Analytics Committee.

Coursework

Complete 18 credits of prescribed coursework, including 6 credits in two SoDA seminars, and 12 credits in approved electives. This does not mean 18 credits of additional coursework. Due to overlapping requirements/double-counting (e.g., some courses in psychology may satisfy SoDA electives), satisfying the SoDA coursework requirement may be met with four well-chosen courses outside the major program (i.e., two SoDA seminars, two electives). The specific requirements that overlap vary by major program.

The minimum course requirements for the dual-title Ph.D. in Social Data Analytics are:

- Course work and other requirements of the primary program
- SODA 501 (3 credits)
- SODA 502 (3 credits)
- 12 or more elective credits in Social Data Analytics from a list of courses maintained by the Social Data Analytics Committee. Collectively the elective credits must satisfy the following requirements:

- (A) Core analytics distribution. 3 or more credits in courses focused on statistical learning, machine learning, data mining, or visual analytics. Courses approved as meeting this requirement are designated (A) on the list of approved electives.
- (Q) Quantification distribution. 6 or more credits in courses focused on statistical inference or quantitative social science methodology. Courses approved as meeting this requirement are designated (Q) on the list of approved electives.
- (C) Computational/Informational distribution. 6 or more credits in courses focused on computation, collection, management, processing, or interaction with electronic data, especially at scale. Courses approved as meeting this requirement are designated (C) on the list of approved electives.
- (S) Social distribution. 6 or more credits in courses with substantial content on the nature of human interaction and/or the analysis of data derived from human interaction and/or the social context or ethics or social consequences of social data analytics. Courses approved as meeting this requirement are designated (S) on the list of approved electives.
- Cross-departmental distribution
 - 3 or more credits in approved courses with the prefix STAT or that of a primarily social science department.
 - 3 or more credits in approved courses with the prefix IST, GEOG, or that of a primarily computer science or engineering department.
 - 6 or more credits in approved courses outside the primary program.
 - 3 or fewer credits in approved courses at the 400-level.

Students or faculty may request that the Social Data Analytics Committee consider approval of elective designations for any course, including temporary approvals for experimental or variable-title courses. Students are encouraged to take interdisciplinary courses that carry multiple (A), (Q), (C), (S) designations, as well as to select SODA electives that also meet requirements of the primary program. Within this framework, final course selection is determined by the student in consultation with academic advisers from their home department and Social Data Analytics.

The Social Data Analytics Program maintains a list of background and skills that it recommends students have in place by the time they begin the interdisciplinary coursework required to complete the Social Data Analytics degree.

Qualifying Examination

The qualifying examination in the primary graduate degree program satisfies the qualifying exam requirement for the dual-title degree program in Social Data Analytics.

Ph.D. Committee Composition

The Ph.D. committee must conform to all requirements of the primary graduate program and the Graduate Council. In addition to the general [Graduate Council requirements for Ph.D. committees](#), the Ph.D. committee of a Social Data Analytics dual-title doctoral degree student must include at least one member of the Social Data Analytics Graduate Faculty. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. If the chair of the Ph.D. committee is not also a member of the Graduate Faculty in Social Data Analytics, the member of the committee representing Social Data Analytics must be appointed as co-chair.

Comprehensive Exam

The dual-title degree will be guided by the comprehensive exam procedure of the primary graduate program. After completion of required course work, doctoral students in the dual-title doctoral degree program must pass a comprehensive examination. In programs where this includes evaluation of a written exam, the Social Data Analytics representative on the student's Ph.D. committee will participate in the writing and evaluation of the exam, in accordance with procedures maintained by the primary graduate program. In programs where the comprehensive exam involves defense of a dissertation prospectus, the Social Data Analytics representative on the student's Ph.D. committee will participate in the evaluation of the prospectus, including ensuring the proposed dissertation has substantial Social Data Analytics content.

Dissertation and Dissertation Defense

Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in their home discipline and Social Data Analytics. The dissertation must be accepted by the Ph.D. committee, the head of the graduate program, and the Graduate School.

Illustrative Path Through the Dual-Title Ph.D.

The table below provides an illustrative example of how a student in psychology might select coursework that would satisfy Department of Psychology requirements, Area-Specific training requirements, and SoDA requirements.

Illustrative Plan of Study

| Coursework | Hours | Dept | Area | A | Q | C | S | DC1 | DC2 |
|---|-------|------|------|---|---|---|---|-----|-----|
| Year 1 Fall (Semester 1) | | | | | | | | | |
| PSY 501: Seminar in General Psychology | 1 | X | | | | | | | |
| PSY 507: Analysis of Psychological Data I | 3 | X | X | | X | | X | X | |
| PSY 522: Personnel Selection and Appraisal | 3 | | X | | | | | | |
| PSY 523: Social-Organizational Psych. in Industry | 3 | | X | | | | | | |
| PSY 534: Practicum in I/O Psychology | 2 | | X | | | | | | |
| | | | | | | | | | |
| Year 1 Spring (Semester 2) | | | | | | | | | |
| PSY 508: Analysis of Psychological Data II | 3 | X | X | | X | | X | X | |
| PSY 534: Practicum in I/O Psychology | 2 | | X | | | | | | |
| PSY 535: Research Methods in I/O Psychology | 3 | | X | | X | | X | X | |
| PSY 537: Topics in Organizational Psychology | 3 | | X | | | | | | |
| PSY 600: Thesis Research | 2 | X | X | | | | | | |
| | | | | | | | | | |
| Year 2 Fall (Semester 3) | | | | | | | | | |
| PSY 534: Practicum in I/O Psychology | 2 | | X | | | | | | |
| PSY 538: Psych. of Personnel Development | 3 | | X | | | | | | |
| PSY 600: Thesis Research | 2 | X | X | | | | | | |
| IST 557: Data Mining: Techniques & Applications | 3 | | | X | X | X | | | X |
| PSY 535: Multilevel Theory, Measurement, & | 3 | | X | | X | | X | X | |
| | | | | | | | | | |
| Year 2 Spring (Semester 4) | | | | | | | | | |
| PSY 534: Practicum in I/O Psychology | 2 | | X | | | | | | |
| PSY 537: Topics in Organizational Research | 3 | | X | | | | | | |
| PSY 600: Thesis Research | 2 | X | X | | | | | | |
| SODA 501: Big Social Data: Approaches & Issues | 3 | | | | | | | | |
| IST 558: Data Mining II | 3 | | | X | X | X | | | X |
| <i>Qualifying Exam: Defend Thesis</i> | | | | | | | | | |
| | | | | | | | | | |
| Year 3 Fall (Semester 5) | | | | | | | | | |
| PSY 534: Practicum in I/O Psychology | 1-3 | | X | | | | | | |
| PSY 601: Ph.D. Dissertation Full-Time | 3 | X | X | | | | | | |
| SODA 502: Social Data Analytics: Approaches & | 3 | | | | | | | | |
| OPEN: additional courses in psychology or SoDA | 3 | | | | | | | | |
| | | | | | | | | | |

| | | | | | | | | | |
|---|-----|---|---|--|---|---|--|---|--|
| Year 3 Spring (Semester 6) | | | | | | | | | |
| PSY 534: Practicum in I/O Psychology | 1-3 | | X | | | | | | |
| PSY 601: Ph.D. Dissertation Full-Time | 3 | X | X | | | | | | |
| STAT 540: Statistical Computing | 3 | | | | X | X | | X | |
| | | | | | | | | | |
| Year 4 | | | | | | | | | |
| PSY 601: Ph.D. Dissertation Full-Time | 18 | | | | | | | | |
| <i>Comprehensive Exam; Propose Dissertation</i> | | | | | | | | | |
| | | | | | | | | | |
| Year 5 | | | | | | | | | |
| PSY 601: Ph.D. Dissertation Full-Time | 18 | | | | | | | | |
| <i>Defend Dissertation</i> | | | | | | | | | |
| | | | | | | | | | |

In addition to satisfying all Department and Area-specific requirements, this plan of study satisfied all requirements of the SoDA Dual-Title Ph.D.:

- Required courses (6 credits = 6 required credits):
 - SODA 501 (3 credits)
 - SODA 502 (3 credits)
- SODA-approved electives (21 credits > 12 required credits):
 - All courses marked A, Q, C, or S in the table
- Analytics distribution (6 credits > 3 required credits):
 - IST 557 (3 credits)
 - IST 558 (3 credits)
- Quantification distribution (21 credits > 6 required credits):
 - PSY 507 (3 credits)
 - PSY 508 (3 credits)
 - PSY 531 (3 credits)
 - PSY 535 (3 credits)
 - IST 557 (3 credits)
 - IST 558 (3 credits)
 - STAT 540 (3 credits)
- Computational/Informational distribution (9 credits > 6 required credits):
 - IST 557 (3 credits)
 - IST 558 (3 credits)
 - STAT 540 (3 credits)
- Social distribution (12 credits > 6 required credits):
 - PSY 507 (3 credits)
 - PSY 508 (3 credits)
 - PSY 531 (3 credits)
 - PSY 535 (3 credits)

- Disciplinary Cluster 1 (Statistics/Social Science) (15 credits > 3 required credits):
 - PSY 507 (3 credits)
 - PSY 508 (3 credits)
 - PSY 531 (3 credits)
 - PSY 535 (3 credits)
 - STAT 540 (3 credits)
- Disciplinary Cluster 2 (IST/GEOG/Engineering) (6 credits > 3 required credits):
 - IST 557 (3 credits)
 - IST 558 (3 credits)
- Out-of-program distribution (non-PSY credits) (9 credits > 6 required credits)
 - IST 557 (3 credits)
 - IST 558 (3 credits)
 - STAT 540 (3 credits)