



TEXAS TECH UNIVERSITY

Department of Psychological Sciences™

## **Experimental Psychology Programs Handbook**

Ph.D. in Experimental Psychology

M.A. in Experimental Psychology

Cognition & Cognitive Neuroscience Area

Human Factors Area

Social Psychology Area

Edition: **2023-2024**

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## Introduction

The Texas Tech University Experimental Psychology graduate programs are designed to provide a broad education in psychology, strong training in methodology, and particular expertise in cognition & cognitive neuroscience, human factors, or social psychology. The programs aim to prepare people for academic careers and for research positions in a variety of settings. The three areas function as one program within the department and encourage scholarship that cuts across area and program boundaries.

The Experimental Psychology faculty members are committed to providing the best possible graduate training in an environment in which students and faculty work together, particularly through ongoing, active collaboration in research. All areas utilize an apprenticeship model in which students work with faculty and become increasingly independent as their research skills develop. The policies and procedures described in this handbook are intended to reflect this model and the values that underlie it.

The mere completion of minimum requirements is not sufficient for success in an advanced degree program or for becoming a professional in the field of psychology. Unlike their undergraduate counterparts, graduate students are expected, as a matter of routine, to take the initiative in pursuing their own professional development. Students should actively seek out opportunities, for example, to read widely in the field; to attend colloquia, job talks, and brown bags; to initiate new research; to attend conferences and conventions and present research; and to apply for support for research and travel.

There is some variation in the time it takes students to complete their graduate programs, but a typical student starting with an undergraduate degree in psychology can expect that it will take approximately 1.5-2 years to finish a master's degree and 4-5 years to finish a doctoral degree. The program is designed for full-time students only. We recognize that most students need financial support that will involve part-time employment in some capacity while enrolled. In most cases, support is provided by the department. However, if the department cannot provide financial support, students seeking support elsewhere should find employment whenever possible in settings that complement the graduate program. Note, however, that international students on visas might be prohibited from being employed outside of the university.

If you have any questions about policies and procedures that are unanswered or unclear in this handbook, please consult with your advisor or the program director. Fellow students, faculty in other programs, department staff, and the Graduate School, to name a few, are not the most reliable sources of information about the graduate programs in Experimental Psychology. We are dedicated to facilitating your success in our graduate programs and beyond, and we hope that this handbook, in conjunction with the Department of Psychological Sciences Handbook and regular discussions with your advisor, will ensure smooth sailing through graduate school.

## Practical Issues

### Department & Program Structure

The Department of Psychological Sciences has graduate students in three graduate programs: Clinical Psychology, Counseling Psychology, and Experimental Psychology. Faculty members and graduate students are each associated with one of these programs. Within the Experimental Psychology program, there are three areas: Cognition & Cognitive Neuroscience, Human Factors, and Social Psychology (as such, faculty members and graduate students within the experimental program are each associated with one of these areas). The department also has an undergraduate program, which is serviced by faculty and graduate students from all programs and areas.

The department is overseen by a department chair, as well as an associate chair(s). Each of the three graduate programs and the undergraduate program has a program director. The department's Executive Committee ("EC") is typically made up of the chair, associate chair(s), and program directors. Sometimes, a program might have an assistant program director or might be led by two program co-directors. Within the experimental program, each area has an area head; area heads do not normally serve on the EC. The department chair usually has a council of designated graduate students who provide direct feedback on policy and other issues to the chair. Program directors and faculty members also routinely seek input and feedback from graduate students on issues that might affect the graduate students or their training.

Within the department, policies and decisions related to graduate students are hierarchical. Departmental policies apply to all graduate students in the department, and these policies are found in the department's Graduate Student Handbook. Similarly, policies and rules set at the department level by the chair, EC, or full faculty apply to all graduate students. Some policies and rules, however, might be specific to the experimental program or even to an area within the experimental program. Program policies apply to all graduate students in the program; area policies apply to all graduate students in that area (e.g., the Human Factors area has some very specific policies related to their accrediting body that apply to Human Factors students). Program-specific and area-specific policies are found in this handbook.

### Advisors

The permanent advisor is chosen by the student with the agreement of the advisor and is usually the faculty member who will chair the student's dissertation committee. Students must email the program director when they have changed advisors (and should Cc: the previous and new advisors). In the rare case in which a student's research advisor is not a member of any of the experimental programs, an academic advisor from one of the experimental programs will also be assigned.

Each semester, students should confer with their academic advisors to plan the next semester's schedule. Students should also keep their advisors up-to-date on all academic activities. Copies of all significant records pertaining to each student's program are kept in the student's file in the main psychology office. Students, their advisors, and the program director are responsible for keeping the file current.

Importantly, the Graduate School considers the program director to be the "advisor" of every graduate student in a program and is not usually aware of a faculty member's designation as a student's advisor. For most graduate school forms, a signature line indicating "advisor's signature" usually means the program director, whereas a signature line indicating "chair of thesis or dissertation committee" usually means the student's departmental advisor. The Graduate School considers the experimental program to be one program and does not recognize the three areas as distinct areas. Therefore, an area head's signature should never replace the program director's signature on any Graduate School forms. Likewise, your advisor cannot override graduate school, department, program, or area policies for you.

## Registration and Enrollment

Students should know that a primary issue regarding enrollment and credit hours is the accrual of doctoral credit hours subsidized by the state. Experimental Psychology students are allowed to accrue no more than 99 doctoral credit hours (see Department Handbook for details).

Definitions:

1. The term “all requirements” in this section means as follows:
  - a. The student has completed (including completing any incomplete grades) all required departmental and program course work, as well as any other courses included in the student’s “Program for the Doctoral Degree.”
  - b. The student has passed the qualifying exam and has been admitted to doctoral candidacy.
  - c. The student has a signed dissertation proposal.
2. “Successful dissertation defense” means the student has passed the oral defense. Further revisions of the dissertation document may (and typically are) required by the committee before the dissertation document is finally accepted by the committee. All revisions required by the committee at defense must be completed and approved by the committee prior to submission of the document to the Graduate School.
3. “Final acceptance” of the dissertation means approval of the document with any required revisions by both the committee and the Graduate School.

Students who have a signed dissertation proposal, have scheduled a defense date, and have completed all requirements except the defense or final acceptance of the dissertation need to register as follows:

1. Long semesters prior to and including the semester of dissertation defense -- the minimum enrollment is 6 credits each long semester (i.e., Fall, Spring).
2. Long semesters following successful dissertation defense but before final acceptance of the dissertation – the minimum enrollment is 3 dissertation credits (PSY 8000) each long semester.
3. Before final acceptance of the dissertation document by the Graduate School, the enrollment during the summer sessions (either SSI, SSII, or combined) is a minimum of 3 dissertation credit hours (PSY 8000). Students who defend during the summer should make sure that the minimum 2 hours total credits with each non-chair committee member is satisfied during or prior to summer sessions (see subsequent section entitled Research Coursework). Note: The experimental programs may impose enrollment requirements above this minimum.

The Graduate School requires that students must be registered for 3 credits of Psy 8000 the semester of graduation (<https://www.depts.ttu.edu/opmanual/OP64.02.php>).

Note: A student may petition the department’s Executive Committee to reduce enrollment requirements by emailing the program director and copying their advisor on this email. The petition should make clear the basis of the request, the student’s current academic situation (e.g., successfully defended dissertation proposal and currently collecting data), and the length of the request (e.g., Summer 1, Fall).

## Performance Requirements

In the experimental programs, a graduate student must earn a B- or better in every required course.

### **Course Withdrawals**

Students must obtain written permission from their advisor to withdraw from a course after the 12th class day of the semester. If necessary, additional credits (e.g., PSY 7000) should be added to maintain full enrollment and full-time commitment to the program, and eligibility for fellowships and assistantships. If additional enrollment is not possible and the student's funding requires full-time enrollment, a memo requesting an exception to Graduate School minimum enrollment requirements should be submitted for signatures to the advisor and the program director, who will forward it to the Graduate School.

### **Second Year Project Timeline**

Ordinarily, students must complete the oral and written portions of their second-year project by the end of the second semester of their second year in the program. If a student has yet to complete the second-year project by the end of the second year (September 1), the Experimental faculty will notify the Graduate School that the student is making inadequate progress on scheduled degree requirements. If a student has yet to complete the second-year project by May of the third year, the Experimental faculty will recommend to the Graduate School that the student be dismissed from the program.

### **Recommended Timeline of Major Milestones**

In order to maintain adequate progress through the program and its degree requirements, the experimental faculty members recommend that graduate students keep the following suggested timeline in mind as they assess their timely progress through the program:

1. Prepare for the departmental presentation for your second-year project during the Fall semester of your 2nd year in the program. Be ready to present early in the Spring semester of your 2nd year in the program. Do not assume that presentations will occur at the very end of the Spring semester.
2. Complete the written paper for your second-year project and have it approved by two readers (or defend your formal thesis) during the Spring semester of your 2nd year in the program.
3. Pass your qualifying exam by the end of your 3rd year in the program.
4. Propose your dissertation by the end of your 4th year in the program.
5. Defend your dissertation by the end of your 5th year in the program.

## Master's Degree Talks (aka "2nd Year Talks")

The university allows two options for completing the master's degree requirements: the "formal thesis" option (aka "PSY 6000") and the "non-thesis" option (aka "PSY 7000"). Both options require an oral presentation of some form. Per current university and department policy, in both cases, the oral presentation itself is not graded or scored. Rather, the presentation serves to communicate the content of the master's research to the audience, and the quality of that research is graded or scored as part of the written document. Current department policy also requires an oral presentation of the master's research for students who transfer in a completed master's thesis from another university. Below are the options that graduate students in the experimental psychology program have for meeting the requirements of the master's degree; each option includes a method for students to meet the oral presentation requirement.

### Options for Completion

**Formal Thesis Option.** The formal thesis option (aka "PSY 6000") involves a thesis committee, a formal thesis proposal, a formal thesis defense, and a formal thesis document. In this case, the formal thesis defense meeting includes an oral presentation of the research conducted and associated findings, so this presentation serves as the oral presentation required for the master's degree. The presentation itself is not scored or graded. There is no specific timeline for when this defense must occur, but program policy (see other relevant sections of this handbook) indicates that all requirements for the thesis (i.e., successful defense) must be met by August of the student's second year in the program. As all formal thesis and dissertation defenses must be open to the university public, anyone who is not on the thesis committee, but wants to attend the defense, may do so.

**Non-Thesis Option.** The non-thesis option (aka "PSY 7000") involves a committee of two faculty readers, no proposal or defense meetings, and a less-formal written document. In this case, an oral presentation of the research project and its findings to the experimental program area (faculty and graduate students) serves as the oral presentation required for the master's degree. The presentation itself is not scored or graded. Every year, the experimental program director will schedule a session(s) of PSY 7000 talks early in the spring semester. Graduate students should expect to give their PSY 7000 talk early in the spring semester of their second year in the program. Program policy (see other relevant sections of this handbook) indicates that all requirements for the 7000 project (i.e., the oral presentation and successful completion of the 7000 paper) must be met by August of the student's second year in the program. Guests (e.g., friends or family of the speakers; faculty or graduate students from other programs in the department or from other departments) are also welcome to attend.

**Transferred Master's Thesis.** Current department policy requires a student who transfers in a master's degree from another university to give an oral presentation over the research the student conducted for that degree. An experimental graduate student who transfers in a master's degree from another university will meet the presentation requirement by giving an oral presentation about the research they conducted for their master's degree to the experimental program (faculty and graduate students) as part of the next session of the program's PSY 7000 talks. The presentation is not scored or graded. Every year, the experimental program director will schedule a session(s) of PSY 7000 talks early in the spring semester. A student who has transferred in a master's degree should complete their presentation in the spring semester of their first year in the program. Guests (e.g., friends or family of the speakers; faculty or graduate students from other programs in the department or from other departments) are welcome to attend.

### Scheduling of Spoken Sessions

The experimental program director will schedule the talk session(s) each year (i.e., for those talks fulfilling the non-thesis and transferred thesis options) and will moderate each session (i.e., introduce the speakers and keep time).

### **Cognition & Cognitive Neuroscience Area Requirements for the Master's Degree (M.A.)**

Enrollment and registration requirements (see the Registration and Enrollment section of this handbook) apply to master's students. Unless a leave of absence is granted by the Experimental Psychology faculty, students are expected to enroll in a combined minimum of six hours across the two summer sessions.

A formal thesis is optional. When these requirements are fulfilled, students should request by email that the program director send a statement to the Graduate School indicating that the comprehensive examination (second-year project) has been passed. The request should be timed to allow the program director's notification to reach the Graduate School before the deadline for that semester, which is typically about six weeks before graduation.

#### **M.A. Curriculum**

##### **Statistics (8 hours)**

PSY 5480 Experimental Design

PSY 5447 Advanced Correlational Methods and Factor Analysis

##### **Departmental Core (6 hours)**

Two courses that fulfill any two of the cognitive, social, or applied core requirements.

##### **Experimental/Statistics Electives (12 hours)**

4 additional courses that are either (a) courses taught by experimental faculty, or (b) statistics courses.

##### **Free Electives (6 hours)**

2 graduate level courses in any area of psychology or any other field.

##### **Research (6 hours)**

A minimum of 6 hours of enrollment in PSY 6000/7000. Even after meeting the PSY 6000/7000 requirement, students must be continuously involved in research.



## Cognition & Cognitive Neuroscience Area Requirements for the Doctoral Degree (Ph.D.)

### Required Coursework

#### Statistics (3 graduate-level courses)

Basic graduate statistics courses (both required)

PSY 5480 Experimental Design

PSY 5447 Advanced Correlational Methods and Factor Analysis

Advanced/specialized course

Any advanced statistics course taught in the Department of Psychological Sciences.

#### Departmental Core (3 courses)

Cognitive Bases of Behavior

Take 1 cognitive or cognitive-neuroscience seminar taught by a Cognition & Cognitive Neuroscience faculty member.

Social Bases of Behavior

Take 1 social psychology seminar taught by a Social Psychology faculty member.

Applications

Take 1 human factors seminar taught by a Human Factors faculty member.

#### Specialization Courses (4 courses)

In collaboration with their advisors, each student will identify any four courses that serve the student's goal of becoming a cognitive psychologist. These courses will typically be Experimental Psychology courses, but they can be from any area of psychology or any other field.

#### Experimental Electives (2 courses)

An additional 2 courses taught by Experimental Psychology faculty, which may include further work in the specialization

#### Colloquium in the Teaching of Psychology

Students must take PSY 5101 (Colloquium in the Teaching of Psychology) before their second year in the program, unless they can demonstrate prior completion of an equivalent course on teaching.

**Note: Experimental graduate students are no longer required to fulfill the department's Biological Bases of Behavior core category, but they may use such courses as specialization or elective courses, as appropriate. Statistics & Methods Courses CANNOT count as Core Courses, even if taught by an experimental faculty member. Statistics & Methods Courses CAN count as Specialization Courses, regardless of the instructor. Statistics & Methods Courses CAN count as Experimental Electives, ONLY if taught by an experimental faculty member.**

#### Research Coursework (i.e., PSY 7000/8000)

21+ credits of PSY 7000

12+ credits of PSY 8000

### Research Requirements

#### Pre-Dissertation Research

In addition to organized coursework, continuous involvement in research is expected. This will include registering for (a) a minimum of 15 hours of enrollment in PSY 7000 before graduation, and (b) enrolling in PSY 7000 for 3 credit hours during each long semester and one summer term each year.

There are two potential exceptions to enrolling for 3 credit hours of PSY 7000 each semester.

1. When organized courses total 7 credit hours (e.g., a 4-credit statistics course and a 3-credit content course) in a given semester, it is permissible for the student to enroll in 2 credits of 7000 instead of 3 credits.

2. Sometimes course schedules may result in three infrequently-offered classes being offered in the same semester. In rare circumstances, a student may register for three 3-credit organized courses and no PSY 7000 credits in a semester. Students who wish to do this must discuss it with their advisor and obtain written permission (an email record is fine).

Students should only undertake these options if they can do so with no decrease to their research productivity. A reduction in 7000 credit hours does not reduce the expected amount of time or effort the student should spend on research, which should always be a primary focus.

#### Dissertation Research

A minimum of 12 hours of enrollment in PSY 8000 (only 12 will be applied to the degree audit). Continuous enrollment of at least 3 hours of PSY 8000 with the dissertation chair beginning at least in the semester in which the dissertation is proposed. Students are required to sign up for a minimum of 2 credits with every other committee member during the course of the dissertation, normally in the semesters of proposal and defense. A student may not begin to enroll in Psychology 8000 until after passing qualifying examination.

## Human Factors Area Requirements for the Master's Degree (M.A.)

Enrollment and registration requirements (see the Registration and Enrollment section of this handbook) apply to master's students. Unless a leave of absence is granted by the Experimental Psychology faculty, students are expected to enroll in a combined minimum of six hours across the two summer sessions.

A formal thesis is optional. When these requirements are fulfilled, students should request by email that the program director send a statement to the Graduate School indicating that the comprehensive examination (second-year project) has been passed. The request should be timed to allow the program director's notification to reach the Graduate School before the deadline for that semester, which is typically about six weeks before graduation.

### M.A. Curriculum:

#### Statistics (8 hours)

- PSY 5480 Experimental Design (required)
- PSY 5447 Advanced Correlational Methods and Factor Analysis (required)

#### Departmental Core (6 hours)

##### Applications

- PSY 5370: Human Factors Psychology (required)

##### Cognitive OR Social

One course from either the cognitive or social options below:

##### Cognitive:

- PSY 5356: Cognition & Cognitive Neuroscience
- PSY 5353: Cognitive Neuroscience

##### Social:

- PSY 5328: Seminar in Social Psychology
- PSY 5300: Attitudes and Attitude Change
- PSY 5335: Group Processes and Intergroup Relations

#### Experimental/Statistics Electives (12 hours)

- PSY 5354: Perception and its Applications (required)
- PSY 5372: Human Factors Methodology (required)
- PSY 5373: Cognitive Ergonomics (required)
- Plus one more 3-credit course that is (a) taught by Experimental faculty and (b) the student and advisor think serve the student's goal of becoming a human factors psychologist. Common HF/E options are listed below. Alternatively, students can take an additional statistics course (which does not have to be taught by Experimental faculty).
  - PSY 5001: Neuro-Ergonomics
  - PSY 5003: Internship
  - PSY 5379: Human-Computer Interaction

#### Industrial Engineering and User Experience/User-Centered Design Electives (6 hours)

- IE 5301: Advanced Industrial Ergonomics (required)
- Plus one course from the following three options:
  - One more graduate IE course
  - ENGL 5388 (User Experience Research)
  - ENGL 5394 (User-Centered Design)

#### Research (6 hours)

- 6+ credits of PSY 6000 (if pursuing the formal thesis option) or 7000 (if pursuing the non-thesis option) (required)

Research experience is considered of primary importance and students are expected to engage in research continuously throughout the year. To develop sufficient research acumen, students should aim to conduct as much research as possible during their graduate studies.

The human factors area utilizes an apprenticeship model in which students become involved in their advisor's ongoing research. The research typically focuses on theoretical issues in Experimental Psychology that have implications for human factors applications.

#### Other MA Requirements:

The following are other skills that students in the human factors area are required to develop. As noted below, opportunities to develop these skills can stem from topical courses, research experiences, or other program-related activities. Students are also free to seek out other opportunities to develop these skills.

#### Quantitative and Computer Skills

- Students must acquire quantitative skills that are appropriate to their course of study. This may be achieved in various ways such as coursework, research experiences, and independent study. Examples include statistics, linear algebra, trigonometry, calculus, or computational modeling.
  - Mastery of mathematics through calculus is strongly recommended.
- Students also must acquire computer skills that are appropriate to their course of study. This may be achieved in various ways such as coursework, research experiences, and independent study. Examples include statistical software packages (SPSS, SAS), prototyping and simulation tools, MATLAB, JAVA, Visual Basic, and C++.
  - Mastery of a higher-level programming language is strongly recommended.

#### Communication Skills

- Students must develop their oral and written communication skills. This is achieved by the oral and written requirements for the MA thesis or Second-Year Project requirement for all MA and PhD students and by the oral and written requirements for the dissertation for PhD students. In addition, in the weekly Human Factors Chat, all students are responsible for one time-period per year.

#### Teamwork Experience

- Students are exposed to multidisciplinary team experiences in various ways such as coursework (Human Factors, Human Factors Methodology, Human-Computer Interaction), the HFES TTU Student Chapter, and practical experiences such as internships. Examples include collaborative class assignments and projects, feedback from fellow students on class presentations, and students working together on practical problems.

## Human Factors Area Requirements for the Doctoral Degree (Ph.D.)

### Required Coursework

#### Statistics (3 graduate-level courses)

Basic graduate statistics courses (both required)

PSY 5480 Experimental Design

PSY 5447 Advanced Correlational Methods and Factor Analysis

Advanced/specialized course

Any advanced statistics course taught in the Department of Psychological Sciences.

#### Departmental Core (9 hours)

Applications

PSY 5370: Human Factors Psychology (required)

Cognitive (choose one)

PSY 5356: Cognition & Cognitive Neuroscience

PSY 5353: Cognitive Neuroscience

Social (choose one)

PSY 5328: Seminar in Social Psychology

PSY 5300: Attitudes and Attitude Change

PSY 5335: Group Processes and Intergroup Relations

#### Specialization (12 hours)

- PSY 5372: Human Factors Methodology (required)
- IE 5301: Advanced Industrial Ergonomics (required)
- Plus two more 3-credit courses that the student and advisor think serve the student's goal of becoming a human factors psychologist. Common HF/E options are listed below. Students often also take additional statistics courses.
  - PSY 5001: Neuro-Ergonomics
  - PSY 5379: Human-Computer Interaction
  - ENGL 5388: User Experience Research
  - ENGL 5394: User-Centered Design
  - A second IE course

#### Experimental Electives (6 hours)

- PSY 5354: Perception and its Applications (required)
- PSY 5373: Cognitive Ergonomics (required)

#### Colloquium in the Teaching of Psychology (1 hour)

Students must take PSY 5101 (Colloquium in the Teaching of Psychology) before their second year in the program, unless they can demonstrate prior completion of an equivalent course on teaching.

#### Research Coursework (i.e., PSY 7000/8000)

15+ credits of PSY 7000

12+ credits of PSY 8000

### Research Requirements

Pre-Dissertation Research

In addition to organized coursework, continuous involvement in research is expected. This will include registering for (a) a minimum of 15 hours of enrollment in PSY 7000 before graduation, and (b) enrolling in PSY 7000 for 3 credit hours during each long semester and one summer term each year.

There are two potential exceptions to enrolling for 3 credit hours of PSY 7000 each semester.

1. When organized courses total 7 credit hours (e.g., a 4-credit statistics course and a 3-credit content course) in a given semester, it is permissible for the student to enroll in 2 credits of 7000 instead of 3 credits.
2. Sometimes course schedules may result in three infrequently-offered classes being offered in the same semester. In rare circumstances, a student may register for three 3-credit organized courses and no PSY 7000 credits in a semester. Students who wish to do this must discuss it with their advisor and obtain written permission (an email record is fine).

Students should only undertake these options if they can do so with no decrease to their research productivity. A reduction in 7000 credit hours does not reduce the expected amount of time or effort the student should spend on research, which should always be a primary focus.

#### Dissertation Research

A minimum of 12 hours of enrollment in PSY 8000 (only 12 will be applied to the degree audit). Continuous enrollment of at least 3 hours of PSY 8000 with the dissertation chair beginning at least in the semester in which the dissertation is proposed. Students are required to sign up for a minimum of 2 credits with every other committee member during the course of the dissertation, normally in the semesters of proposal and defense. A student may not begin to enroll in Psychology 8000 until after passing qualifying examination.

Students should aim to defend their dissertations during long semesters. They should make every effort to avoid holding their dissertation defenses during the summer because committee members may not be available.

Research experience is considered of primary importance and students are expected to engage in research continuously throughout the year. To develop sufficient research acumen, students should aim to conduct as much research as possible during their graduate studies.

The human factors area utilizes an apprenticeship model in which students become involved in their advisor's ongoing research. The research typically focuses on theoretical issues in Experimental Psychology that have implications for human factors applications.

#### Other PhD Requirements:

The following are other skills that students in the human factors area are required to develop. As noted below, opportunities to develop these skills can stem from topical courses, research experiences, or other program-related activities. Students are also free to seek out other opportunities to develop these skills.

#### Quantitative and Computer Skills

- Students must acquire quantitative skills that are appropriate to their course of study. This may be achieved in various ways such as coursework, research experiences, and independent study. Examples include statistics, linear algebra, trigonometry, calculus, or computational modeling.
  - Mastery of mathematics through calculus is strongly recommended.
- Students also must acquire computer skills that are appropriate to their course of study. This may be achieved in various ways such as coursework, research experiences, and independent study. Examples include statistical software packages (SPSS, SAS), prototyping and simulation tools, MATLAB, JAVA, Visual Basic, and C++.
  - Mastery of a higher-level programming language is strongly recommended.

#### Communication Skills

- Students must develop their oral and written communication skills. This is achieved by the oral and written requirements for the MA thesis or Second-Year Project requirement for all MA and PhD students and by the oral and written requirements for the dissertation for PhD students. In addition, in the weekly Human Factors Chat, all students are responsible for one time-period per year.

#### Teamwork Experience

- Students are exposed to multidisciplinary team experiences in various ways such as coursework (Human Factors, Human Factors Methodology, Human-Computer Interaction), the HFES TTU Student Chapter, and practical experiences such as internships. Examples include collaborative class assignments and projects, feedback from fellow students on class presentations, and students working together on practical problems.

**Note: Experimental graduate students are no longer required to fulfill the department's Biological Bases of Behavior core category.**

### **Social Psychology Area Requirements for the Master's Degree (M.A.)**

Enrollment and registration requirements (see the Registration and Enrollment section of this handbook) apply to master's students. Unless a leave of absence is granted by the Experimental Psychology faculty, students are expected to enroll in a combined minimum of six hours across the two summer sessions.

A formal thesis is optional. When these requirements are fulfilled, students should request by email that the program director send a statement to the Graduate School indicating that the comprehensive examination (second-year project) has been passed. The request should be timed to allow the program director's notification to reach the Graduate School before the deadline for that semester, which is typically about six weeks before graduation.

#### M.A. Curriculum

##### Statistics (8 hours)

PSY 5480 Experimental Design

PSY 5447 Advanced Correlational Methods and Factor Analysis

##### Departmental Core (6 hours)

Two courses that fulfill any two of the cognitive, social, or applied core requirements.

##### Experimental/Statistics Electives (12 hours)

4 additional courses that are either (a) courses taught by experimental faculty, or (b) statistics courses.

##### Free Electives (6 hours)

2 graduate level courses in any area of psychology or any other field.

##### Research (6 hours)

A minimum of 6 hours of enrollment in PSY 6000/7000. Even after meeting the PSY 6000/7000 requirement, students must be continuously involved in research.



## Social Psychology Area Requirements for the Doctoral Degree (Ph.D.)

### Required Coursework

#### Statistics (3 graduate-level courses)

Basic graduate statistics courses (both required)

PSY 5480 Experimental Design

PSY 5447 Advanced Correlational Methods and Factor Analysis

Advanced/specialized course

Any advanced statistics course taught in the Department of Psychological Sciences.

#### Departmental Core (3 courses)

Cognitive Bases of Behavior

Take 1 cognitive or cognitive-neuroscience seminar taught by a Cognition & Cognitive Neuroscience faculty member.

Social Bases of Behavior

Take 1 social psychology seminar taught by a Social Psychology faculty member.

Applications

Take 1 human factors seminar taught by a Human Factors faculty member.

#### Specialization Courses (4 courses)

In collaboration with their advisors, each student will identify any four courses that serve the student's goal of becoming a social psychologist. These courses will typically be Experimental Psychology courses, but they can be from any area of psychology or any other field.

#### Experimental Electives (2 courses)

An additional 2 courses taught by Experimental Psychology faculty, which may include further work in the specialization

#### Colloquium in the Teaching of Psychology

Students must take PSY 5101 (Colloquium in the Teaching of Psychology) before their second year in the program, unless they can demonstrate prior completion of an equivalent course on teaching.

**Note: Experimental graduate students are no longer required to fulfill the department's Biological Bases of Behavior core category, but they may use such courses as specialization or elective courses, as appropriate. Statistics & Methods Courses CANNOT count as Core Courses, even if taught by an experimental faculty member. Statistics & Methods Courses CAN count as Specialization Courses, regardless of the instructor. Statistics & Methods Courses CAN count as Experimental Electives, ONLY if taught by an experimental faculty member.**

#### Research Coursework (i.e., PSY 7000/8000)

15+ credits of PSY 7000

12+ credits of PSY 8000

### Research Requirements

#### Pre-Dissertation Research

In addition to organized coursework, continuous involvement in research is expected. This will include registering for (a) a minimum of 15 hours of enrollment in PSY 7000 before graduation, and (b) enrolling in PSY 7000 for 3 credit hours during each long semester and one summer term each year.

There are two potential exceptions to enrolling for 3 credit hours of PSY 7000 each semester.

1. When organized courses total 7 credit hours (e.g., a 4-credit statistics course and a 3-credit content course) in a given semester, it is permissible for the student to enroll in 2 credits of 7000 instead of 3 credits.

2. Sometimes course schedules may result in three infrequently-offered classes being offered in the same semester. In rare circumstances, a student may register for three 3-credit organized courses and no PSY 7000 credits in a semester. Students who wish to do this must discuss it with their advisor and obtain written permission (an email record is fine).

Students should only undertake these options if they can do so with no decrease to their research productivity. A reduction in 7000 credit hours does not reduce the expected amount of time or effort the student should spend on research, which should always be a primary focus.

#### Dissertation Research

A minimum of 12 hours of enrollment in PSY 8000 (only 12 will be applied to the degree audit). Continuous enrollment of at least 3 hours of PSY 8000 with the dissertation chair beginning at least in the semester in which the dissertation is proposed. Students are required to sign up for a minimum of 2 credits with every other committee member during the course of the dissertation, normally in the semesters of proposal and defense. A student may not begin to enroll in Psychology 8000 until after passing qualifying examination.

## Experimental Psychology Program Internship Policies

### Reduced Enrollment Requirements

Experimental graduate students who wish to receive a course credit (enrollment) reduction while completing an internship must follow the guidelines below. Failure to follow these guidelines will mean that the student will not receive a course credit reduction while on internship and could lead to other negative consequences deemed appropriate by their faculty supervisor and the Experimental Program Director, with consultation from the Experimental faculty.

**In order for an Experimental Graduate Student to complete an internship *and* receive a course credit (enrollment) reduction, the student must:**

1. **Get approval from their faculty supervisor (i.e., Ph.D. or M.A. advisor).** The faculty supervisor will use the definition of an internship (provided below) to determine if the internship is acceptable and will count for the course credit reduction.  
 Note: If the faculty supervisor decides that the internship does not meet the definition of an internship provided below, then the student can petition the Experimental Director to form a three-person ad hoc committee (which will include the student's faculty supervisor, the area head of the student's area [e.g., the Human Factors area head], and the Experimental Director). This committee will evaluate the internship opportunity and vote if they deem it to be acceptable for reduced enrollment. Two of the three members must approve in order for the student to receive reduced enrollment. If the student's supervisor is the Experimental Director or an area head, then an area head of one of the other programs (e.g., Social or Cognition and Cognitive Neuroscience) will be added to the committee.
2. **Arrange for the internship site supervisor to provide the faculty supervisor with an evaluation of the student's performance after the internship is completed.** This evaluation should be a formal, written, summative evaluation.
3. **Provide an oral presentation (e.g., at the student's area brown bag or chat group) or written evaluation of their internship experience.** The presentation or paper should include a summary of what the student did and learned during the internship.
4. **Sign up for 4 credit hours for internships that occur during Fall or Spring Semesters and 3 credit hours during the summer semester (at least 1 hour in summer I and 2 hours in summer II, or vice versa).** Students who want to get specific course credit for their internship will need to sign up for PSY 5003 with their faculty supervisor. Students who do not want specific course credit for their internship should sign up for 6000/7000/8000 credits with their faculty supervisor.  
 Note: Students on internship still need to meet continuous enrollment requirements. See OP: <https://www.depts.ttu.edu/opmanual/OP64.02.php>

**Definition of an Internship**

This definition is to be used by the faculty supervisors to determine if the student's internship meets the requirements to be counted as an internship and the student can receive a course credit reduction.

1. The internship experience must involve the student gaining or applying knowledge, skills, or abilities that are germane to their current graduate program in the Department of Psychological Sciences (and to their area of concentration within the Experimental Psychology program).
2. The knowledge, skills, or abilities learned must be transferable to other employment settings.
3. The internship experience is full-time, has a defined beginning and end, and involves a job description with desired or required qualifications.
4. There is on-site supervision by an expert in the field of the internship experience who has educational or professional background in that field.
5. The on-site supervisor regularly provides the intern feedback (formal or informal) and will provide the intern's major advisor formal summative feedback at the end of the internship.
6. There are resources, equipment, and facilities provided by the host employer that support the student's learning.

### **Qualifying Examination**

To be eligible to take the qualifying examination, students must have completed their second-year project (or thesis) including both the oral and written requirements. Please see individual area sections for coursework requirements for qualifying exams.

The student's doctoral degree plan should be revised at this time to reflect the courses that were actually taken.

Following the exam, the chair of the qualifying exam committee will notify the Experimental Director of the results via email (regardless of whether the student passed or failed). The email should CC the committee and include the date the exam was completed.

Passing the qualifying exam is required for admission to candidacy by the Graduate School. Other requirements for admission to candidacy are given in the graduate catalog.

## Qualifying Examination in Cognition & Cognitive Neuroscience

Students in the Cognition & Cognitive Neuroscience area will submit a written literature review and participate in an oral defense to complete the qualifying examination requirement. To be eligible to take the qualifying examination, students must have completed their second-year project (or thesis) including both the oral and written requirements. Additionally, students must have completed four upper-level courses across the categories of “specialization” or “experimental electives.”

The student and the student’s Cognition & Cognitive Neuroscience faculty mentor will jointly select an examination committee of three faculty members, at least two of whom must be members of the Cognition & Cognitive Neuroscience area. With the permission of the faculty mentor, the student may invite a fourth faculty member to the committee to serve as “reader.” A reader may read and provide feedback on the submitted document and attend the defense, but they will not issue a grade.

The student, with advice from their faculty mentor, will develop a topic for the literature review that integrates across at least two research areas related to cognition and/or cognitive neuroscience. The literature review will cover the current knowledge in the topic area(s) by integrating across important study results, methods, and theories. The review should not simply be a set of summaries or critiques of a list of papers, but also a novel synthesis of the current state of knowledge in the literature covered by the topic. Examples of appropriate literature reviews can be found in *Psychological Review*, *Annual Review of Psychology or Neuroscience*, and *Nature Reviews Neuroscience*. The student will write a brief prospectus on this proposed topic, the research areas covered and how they will be integrated, and an anticipated reference list. They will schedule a one-hour meeting with the qualifying exam committee to present the prospectus and receive feedback about the proposed area and expectations of the committee in terms of content. The prospectus must be sent to all members of the committee one week prior to the scheduled meeting. The committee is formally established once all members have accepted the prospectus.

The student will complete a literature review paper based on the approved prospectus, taking into account feedback from the committee. The student will be allowed to seek comments on a preliminary version of their literature review with their faculty mentor only once. The maximum length of the review (excluding title page, table of contents, abstract, references, figures, and/or tables) is 60 pages (double-spaced, 12 point Arial or Times New Roman font, 1 inch margins, and APA-style headings, citations, and references). The primary scoring consideration will be whether the review comprehensively reflects the state of knowledge in the topic area as opposed to the number of pages, but as a guideline, most successful reviews will be at least 35 pages. The completed literature review must be sent to all members of the committee two weeks prior to the defense.

The student will complete an oral defense of the literature review and the general content domains covered by the literature review. This oral defense will be scheduled for no longer than 90 minutes. In the first 20- 30 minutes, the student will present their literature review. In the second 30 minutes, committee members will ask questions about the review. In the final 30 minutes, the committee will discuss the merits of the review and deliver the grades for both sections.

The student must complete both the written and oral components within 6 months following the formal establishment of the examination committee. A single petition for an extension can be submitted in writing to the committee for approval by majority vote. Extensions will only be granted for delays due to atypical circumstances outside of the student’s control, not including delays due to teaching, service, or research workload. If a student fails to complete the oral defense within 6 months without obtaining an extension, the student will receive a Fail from all committee members for all missing components; after which, the student will have one opportunity to redo the failed section(s). See Grading below for more information.

**Grading:** Each committee member will assign a separate grade of Pass (P), Needs Improvement (NI), or Fail (F) for the oral component and written component of the qualifying exam. A student who receives all Ps passes the exam.

A student who receives one or more NI on either the written or oral component and all Ps otherwise will receive specific requests for clarifications, elaborations, and/or revisions from the committee. Any revisions made to the document or presentation must be completed within a 1-month period and without feedback from any committee members (including the student's advisor). The committee will determine whether to reconvene to review the revisions. Any committee member(s) who assigned an NI grade will reassign a grade of P or F after the 1-month period. A final committee grade will not be issued until all NI grades are converted to either P or F.

One or more F votes on the oral or written component will result in a final committee grade of Fail for that component. The student will then be given one opportunity to redo the failed component. Students must wait at least 4 months from the date of the oral presentation to redo a failed component and not more than 12 months.

A qualifying exam report will be submitted to the Graduate School each time a final committee grade is issued.

See the Texas Tech University Academic Catalog for more information on the Graduate School's policy on Qualifying Examination at <https://catalog.ttu.edu/content.php?catoid=17&navoid=1654#doctoral-program>.

**Writing your literature review and preparing for your defense are not acceptable excuses to avoid research, miss classes, complete your assistantship duties (e.g., teaching a class), or miss any other department / university duty. If such a conflict is seemingly unavoidable, the chair of your exam committee can work with the affected entities (e.g., your teaching supervisor) to find a mutually agreeable solution to the conflict.**

## Qualifying Examination in Human Factors

Exam Purpose, Content, and Format: Successful completion of the qualifying examination in Human Factors Psychology documents that the student has mastered the foundations of the field. Toward that end, the qualifying examination is a written test of the student's knowledge and mastery of the fundamentals that every human factors psychologist should know.

The content of this exam will be based on the four required Human Factors courses (PSY5354: Seminar in Perception: Theories and Applications, PSY5370: Human Factors Psychology, PSY5372: Human Factors Methodology, PSY5373: Cognitive Ergonomics). The instructor of each of these courses will write questions for the exam related to their course(s). Each faculty member has discretion regarding how many questions to include or how to organize them. Faculty who generate questions are considered to be your committee.

This examination is closed book—students will not have access to their study materials or the Internet. Please note that students are expected to show comprehension of the topics covered in these classes beyond that needed to pass these classes. Specifically, students must show in-depth understanding of the topics covered in these classes, and greater breadth of knowledge may also be required.

The exam will take place across two days. On each day, two class-related content areas will be tested (one in the morning, and one in the afternoon). Questions for each content area will be developed by faculty so that they can be completed in approximately 2 hours, and students will be allowed a maximum of 3 hours to complete questions for each content area. See the example schedule below:

Day	Morning 9am-12pm	Afternoon 1pm-4pm
1	Human Factors	Human Factors Methodology
2	Perception	Cognitive Ergonomics

A room and computer will be provided to complete the exam. A faculty member will serve as proctor for the exam. This faculty proctor will provide printed questions and a flash drive that the student will use to save their answers to the question set. At the start of each day, the student will meet with the proctor to receive the first printed question set and flash drive in a sealed envelope. When the student finishes each question set, they will save their answers on the flash drive, place the flash drive and the original questions into the envelope, and return the envelope to the proctor. The proctor will save the student's answers to their own computer and delete them from the flash drive. If there is another set of questions to be given that day, the previous set of questions will be exchanged for the next set of questions, and the flash drive and a new envelope will be provided to the student for them to complete the next section.

Students may not bring any materials into the testing room. Students may not retrieve an envelope, questions, or answers after they have been turned in. Students may not leave the examination area while working on a question ("mid-envelope"). If the student needs a break (e.g., to use the restroom), they will contact the proctor. Student answers will be deleted from the testing computer after completion of the exam. Duplication of any exam questions or answers is not permitted.

Timeline and Important Dates: The qualifying exam will be offered annually in December. The exact dates will be determined by the human factors faculty. In instances where a student must retake their qualifying exam because of a failed first attempt, the retake will be offered in May during the spring semester immediately following the fall semester of the initial exam (exact date determined by human factors faculty).

Students are expected to take the qualifying exam in their 3<sup>rd</sup> year in the program. Students who have not successfully completed qualifying examinations by the end of their 3<sup>rd</sup> year will be considered to be behind on this milestone, and the Experimental faculty may notify the Graduate School that the student is making inadequate progress on scheduled degree requirements of the Experimental Psychology PhD in the Human Factors area.



Before taking the exam, students should contact faculty who teach the four courses related to qualifying exam content to obtain required reading lists and other advice about how to prepare for each class-related area of the examination. Students should do so once they have successfully completed all four courses – usually in May of their 2<sup>nd</sup> year in the program. Students should plan study time across at least four months. Note that students are expected to remain active in research and must keep up with other duties while studying for qualifying exams.

Faculty aim to complete grading within 2 weeks of the end of the examination period. Once grading is complete, the faculty who graded the examination will meet to discuss the outcome, as well as any remediation, if necessary. The student's major advisor will notify the student of the outcome.

Grading: Each faculty member will grade questions in their respective content area (i.e., the area(s) for which they provided questions). Questions will be graded using the following 5-point scale: 4 = above average pass, 3 = average pass, 2 = marginal pass, 1 = marginal fail, 0 = definite fail. To pass, the student must pass all subsections (i.e., perception, human factors, human factors methods, and cognitive ergonomics). Each faculty member will have discretion in determining how their subsection is scored. After all faculty members have completed their grading, they will meet to discuss the results. There are three possible grades for the exam:

1. *Pass:* If the student passes all content areas, the student will receive a grade of *Pass* for the entire exam.
2. *Fail with Remediation Plan:* If the student fails one content area, the student will receive a grade of *Fail with Remediation Plan* for the entire exam.
  - If a student receives a *Fail with Remediation Plan* grade, the student will be instructed by faculty to complete remedial work that, at the committee's discretion, could be open book, closed book, or both. The remediation may consist of one or more parts. The exact nature of the remedial work will take into account the strengths and weaknesses of the particular student that were demonstrated in the original examination. Thus, students may differ in the format and nature of remedial work. The deadline(s) for completion of remedial work will be set by the committee. The student must pass all elements of the remediation to pass qualifying examinations. If the student fails any part of the remediation, the student must retake the entire qualifying exam. If the student fails the retaken exam, no remediation will be possible, and the student will be considered as having failed qualifying exams for the second time and will not be permitted to continue in the program.
3. *Fail, No Remediation Possible:* If the student fails two or more of the content areas, the student will receive a grade of *Fail No Remediation Possible* for the entire exam.
  - If a student receives a *Fail, No Remediation Possible* grade, the qualifying exam must be retaken. If the student fails the retaken exam, no remediation will be possible, and the student will be considered as having failed qualifying exams for the second time and will not be permitted to continue in the program.

The content, format, or number of questions included in the exam for any retake may differ from the original exam.

If a student is asked to retake the qualifying exam and does not do so when the retake is offered in May, they may be considered to have failed the qualifying exam a second time and may not be permitted to continue in the program.

Academic Misconduct: Sharing or discussing any qualifying exam questions with any fellow grad students is considered academic misconduct. Further, using the Internet or any notes, articles, or other written documents while taking the examinations is also considered academic misconduct. Instances of any form of academic misconduct will be dealt with according to TTU guidelines.

### **Qualifying Examination in Social Psychology**

Students will have two options for the written portion of their qualifying exams: (1) a timed written essay exam or (2) an integrative literature review paper. Student candidates will identify three TTU faculty, with at least two from social psychology, to serve as members of their qualifying exam committee. Students should work with their advisor on deciding which option to pursue for their qualifying exam. Two attempts in the exam are permitted. If the student fails their first attempt, the student, at their discretion, may change committee members before the second attempt at the qualifying exam if alternative faculty are available.

### **Qualifying Exam Eligibility**

To be eligible to take the qualifying examination, students must have completed their second-year project (or thesis) including both the oral and written requirements. Additionally, students must have completed four upper-level courses across the categories of “specialization” or “experimental electives.”

### **Reading List and Aims Paragraph**

Once a topic is chosen, the committee chair and student will collaborate on a prospective reference list of around 80 readings or more, not including the core readings (to be added to, as needed). Students will also prepare a one-paragraph summary of the topics (theories, phenomena, problems, etc.) of their qualifying exam. The reading list and aims paragraph should be sent to the committee \*before\* the student starts reading the selected papers for the written exam or before the student starts writing the integrated literature review. After the submission, committee members may optionally require the student to read and cite additional papers that they believe are relevant to the aims. Integrated literature reviews should cite 80 papers at a minimum but may cite as many papers as the student and committee wish. Students are expected to have read and be able to answer questions about all the references for their written exam/literature review and the oral qualifying exam.

### **Collusion during the Qualifying Exam**

Since writing, analytical, and critical thinking skills are assessed during the qualifying exam, all work (regardless of whether the student takes the written exam or literature review) should be prepared by the student without assistance from anyone or anything else in regard to the content or writing of the document or exam. Therefore, AI-generated submissions are not permitted and will be treated as plagiarism, and collaborating with any other person is also not permitted and will be treated as plagiarism.

### **Option 1. Written Exam**

Students will schedule the written qualifying exam at their discretion with the chair of the qualifying exam committee (typically their academic advisor) and the committee members. Students will be given 6 questions, designed by their committee members, and must select 5 to answer, with a maximum of 3 single-spaced typed pages allowed per response (not including corresponding references). Students may complete their exams in any location they see fit and are not restricted to a specific classroom or examination area. Any form of collaboration with anyone is absolutely and strictly prohibited.

**Timing.** The written portion of the qualifying examination is administered over 4 consecutive days. Exams will be distributed at a time and date chosen by the student/chair and submitted 80 hours later. For example, an exam beginning at 9 am on a Monday will be due by 5 pm on Thursday, the fourth day after the exam is released to the student. SDS accommodations for extra time will be honored (for example, a person who gets 1.5x on timed exams would have 120 hours to complete the exam).

**Scoring.** Each question will be graded by two committee members, one of whom is the author of the question, using a 3-point scale: honors, pass, and fail. To pass the exam, students must receive no more than three “Fails” total across all 10 scores. Students who receive four or more “Fail” scores fail their first attempt at the written exam and will not be allowed to proceed with the oral defense portion of the qualifying examination. The Graduate School requires students to wait a minimum of 4 months (but not more than 12 months) before a second attempt at the written portion of the qualifying exam. Students who fail to pass the written portion of the qualifying exam a second time will be recommended for dismissal from the Experimental Doctoral program. Students will be notified of the total number of passes

with honors, passes, and fails they received after the written exam, but not the breakdown for each question until after the oral exam.

**Late Submissions and Extensions.** Exams submitted between 5 minutes and 1 hour after the deadline will receive a penalty of one additional fail. Submissions more than 1 hour late will not be graded and will automatically fail except in case of verifiable emergencies, which a majority of the committee must accept as a reasonable excuse for missing the deadline. If students become unable to take the exam for any reason leading up to or during the written exam period, they must immediately contact the committee to either delay the start of their exam or request an extension, as appropriate. All reasonable requests based on any unexpected and uncontrollable events (physical/mental health crises or personal emergencies) that prevent the student from working on the exam will be considered. Formal documentation (e.g., a doctor's note) may be required when an official accommodation request is made to the committee. A majority of the committee must approve any accommodation. Mitigating information and requests for accommodation are unlikely to be considered for the first time after an exam has been submitted. In cases where a student is unable to work on the exam continuously due to physical, mental, or personal necessity, accommodations will be made to take the written exam in intervals of one or more questions at a time, with standard timing being 16 hours per question; documentation from SDS will be needed to make this kind of accommodation.

**Oral Defense and Evaluation Criteria.** Student candidates will schedule the oral defense meeting with their committee members between two and eight weeks after being notified of a "passing" score on the written portion of the exam. The oral defense meeting will provide an opportunity for student candidates to (a) respond to and clarify questions raised by their written responses, (b) demonstrate additional knowledge that was not specifically assessed in the written portion but is still pertinent to the approved bibliography, and (c) practice responding to and defending arguments related to social psychological theories, empirical work, and methodological approaches. At the end of the defense meeting, each committee member will provide an evaluation score: 2, honors; 1, pass; 0, fail. To pass the exam, a student must receive no more than one Fail across all three committee members. Students who fail the initial oral defense will be allowed to reschedule one additional oral defense meeting after waiting at least 4 months from failing their first oral defense before scheduling their second oral defense. If a student neglects to schedule a second oral defense meeting or if the student fails two oral defense meetings, barring extenuating circumstances, the student will be recommended for dismissal from the Experimental Doctoral program.

### **Option 2. Literature Review**

Students will have the option to write an integrative literature review that is approximately equivalent, in terms of content and references cited, to the written qualifying exam. If students choose the literature review option, they will write a review paper that covers at least three domains/topics/theories/etc. within a specialty research area chosen by the student in collaboration with their committee chair. The review should not resemble an annotated bibliography. It should have both depth and breadth, covering debates within each domain in detail as well as integrating across the three subareas. Examples of appropriate literature reviews can be found in *Psychological Bulletin*, *Annual Review of Psychology*, *Psychological Review*, *European Review of Social Psychology*, or *Advances in Experimental Social Psychology*.

**Prospectus.** The paper will be mutually defined by the student and the committee. Students will submit a 1-page single-spaced proposal (or white paper) on the specialty topic and related domains to the Qualifying Examination Committee members for their review and approval. The page limit does not include the reference list. The prospectus should include a brief introduction to the topic, research questions or aims, a brief outline of the research domains that will be included in the full document, and initial citations/references relevant to the chosen topic. The prospectus should be submitted no later than the Spring semester of the fourth year in the program, regardless of their intended graduation date.

**Feedback and Supervision.** The literature review must be the student's work and their work only. The student should not receive detailed feedback from peers, faculty, or advisors, nor should they otherwise collaborate on the review with anyone. Students are encouraged (but not required) to submit one draft of their literature review to their committee chair at least 2 weeks in advance of the agreed-upon submission

deadline in order to get big-picture feedback. The chair will only comment on the review and will not personally contribute to the writing or copy-editing. The committee will be copied on this correspondence. Any substantive input from the research advisor or other committee members should be appropriately cited in the paper (e.g., Doe, personal communication, 2021).

**Formatting and Sections.** The literature review should include no more than 40 pages of text (double-spaced, excluding title page, table of contents, abstract, references, figures, and tables; APA style, 11-12-pt Arial or Times New Roman, 1" margins). Reviews should include the following sections: (1) introduction (introduce the topics or problem, being sure to clearly define and clarify the problem/topics and the approaches to addressing that problem/topic), (2) background/literature review of the problem/topics (summarizing previous investigations to identify the state of the field on the problem/topics), (3) identify relations, contradictions, gaps, or inconsistencies in the literature, (4) novel contribution to problem/topics (the student's novel contribution to the area, including but not limited to a proposed solution to a problem, a new model, a substantial modification of an existing theory, or a proposal for empirical research that could help resolve the discrepancies in the literature), and (5) implications (identify the theoretical or methodological implications of the proposed innovation for the field).

**Submission.** Upon completion of the literature review, students will email the final document to all committee members at the agreed upon time. Committee members will have 2 weeks (10 business days, not including holidays or days when the campus is closed) to grade the literature review. If their scores are sufficient to pass, the student will then email the committee to schedule a time for the oral defense (see Oral Defense section below). All papers will be checked for plagiarism using Safe Assign. Papers with substantial plagiarism (more than a few words or phrases) will automatically fail.

**Timing.** Students must complete the literature review within 6 months of their prospectus and reading list being approved by their committee. Students can petition for an extension for extenuating circumstances. Petitions for extensions must be approved by at least two members of the three-person qualifying exam committee in order to be allowed.

**Scoring.** The committee members will assign a score of pass with honors, pass, or fail to each of the five sections listed above. Passing or failing will depend on both the content (e.g., apt references, innovative ideas, sound reasoning), the writing quality (e.g., coherence, lucidity, grammar), and if the paper is not formatted according to the most recent version of the APA publication manual. If the writing is poor, a grader may fail a section on that basis alone. A student must receive at least 10 out of 15 passes (or pass with honors) in order to pass the exam. Students who receive 6 or more "Fail" scores fail their first attempt at the written exam and will not be allowed to proceed with the oral defense portion of the qualifying examination. The Graduate School requires students to wait a minimum of 4 months (but not more than 12 months) before a second attempt at the written portion of the qualifying exam. Students who fail to pass the written portion of the qualifying exam a second time will be recommended for dismissal from the Experimental Doctoral program. Students cannot receive feedback about their paper until after they passed the oral exam. Students will be notified of the total number of passes with honors, passes, and fails they received after the written exam, but not the breakdown for each section until after the oral exam.

**Oral Defense and Evaluation Criteria.** Student candidates will schedule the oral defense meeting with their committee members 2-4 weeks after being notified of a passing score on the written portion of the exam. The oral defense meeting will provide an opportunity for student candidates to (a) respond to and clarify questions raised by their literature review, (b) demonstrate additional knowledge that was not specifically assessed in the written portion but is still pertinent to the approved bibliography, and (c) practice responding to and defending arguments related to social psychological theories, empirical work, and methodological approaches. At the end of the defense meeting, each committee member will provide an evaluation score: honors, pass, or fail. To pass the exam, a student must receive no more than one fail across all three committee members. Students who fail the initial oral defense will be allowed to reschedule one additional oral defense meeting within the next 2 weeks. If a student fails to schedule a second oral defense meeting or if the student fails two oral defense meetings, barring extenuating circumstances, the student will be recommended for dismissal from the Experimental Doctoral program.

**Your qualifying exam is not a university excused absence to miss classes, assistantship duties (e.g., teaching a class), or any other department / university duty.**

## Dissertation Requirement

The department has adopted a dissertation format (within the bounds of Graduate School requirements) that will make it easier to develop journal versions of the dissertation research. All dissertations will have the following form and section requirements:

**INTRODUCTION:** The introduction to the dissertation will be of such scope and length as would normally be appropriate for the submission of that research to a professional journal. The department recognizes that the nature of the research and the journal targeted for submission may affect the length of an introductory section. What would be appropriate in each case will be decided by the student and the committee members.

**METHOD AND RESULTS SECTIONS:** Students should consider the appropriateness of shortening the traditionally long method and results sections to make them more appropriate for journal submission. The dissertation document should, however, contain all pertinent information, and, as indicated below, there may be appendices for less than essential details of methods and results.

### DISCUSSION

**EXPANDED LITERATURE REVIEW AND HISTORICAL FOUNDATIONS:** Each dissertation will have this as an *optional* appendix. This appendix will normally contain an expanded, detailed literature review that might entail more of an historical review of the subject matter, and a broader perspective of the research that was conducted.

**OPTIONAL APPENDICES** (e.g., “Expanded Details of Method” and “Supplemental Findings and Results”). Students should consider using these appendices when there are details of method and supplemental, tangential, or marginal analyses or results that would not normally be appropriate for a journal manuscript, but which are essential in demonstrating a scholarly treatment of the problem.

**TRADITIONAL APPENDICES:** Appendices should be presented in the following order:  
Expanded Literature (may be needed)  
Expanded Methods and Results (may be needed)  
Supplemental Findings (may be needed)  
Other appendices as needed. These may include the traditional appendices for copies of tests, scales that were administered, task instructions, etc.

Each student should consult with the committee about what would be appropriate for the text and appendices. The department recognizes that there may be instances where a particular dissertation may not be suited to this scheme (e.g., a historical or philosophical treatise). In such instances, the student may submit a petition, endorsed by the dissertation chairperson, to the program director for approval to change the format.