

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 6000/7000/8000)

15+ credits of PSY 6000/7000

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 6000/7000 before graduation, and (b) enrolling in PSY 6000/7000 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 6000/7000 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 6000/7000 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 6000/7000 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 (6 hours)

- IE 5309: Human Factors in Engineering and Design (required)
- One more IE course

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 (18 hours)

- PSY 5372: Human Factors Methodology (required)
- IE 5309: Human Factors in Engineering and Design (required)
- One more IE course
- Plus three 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 5003: Internship
 - PSY 5379: Human-Computer Interaction
 - ENGL 5388: User Experience Research
 - ENGL 5377: User-Centered Design

Experimental Electives (6 hours)

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

Industrial Engineering (6 hours)

- IE 5309: Human Factors in Engineering and Design (required)
- One more IE course

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 6000/7000/8000)

15+ credits of PSY 6000/7000

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 6000/7000 before graduation, and (b) enrolling in PSY 6000/7000 for 3 credit hours during each long semester and one summer term each year.

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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 6000/7000 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 6000/7000 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.

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.

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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.)

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Departmental Core (6 hours)

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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

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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 (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 (1 credit hour in 5003 is possible each semester, the rest should be in 6000/7000/8000 credits). Students who do not want specific course credit for their internship should sign up for 6000/7000/8000 credits with their faculty supervisor. Students who have passed their dissertation defense or are in the semester in which they will defend their dissertation, will only need to sign up for 1 credit of 8000 with their faculty supervisor.

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. They should also have completed all of the coursework in their specialization.

The doctoral qualifying examination will consist of an essay exam of at least six hours duration. It will typically be constructed and graded by at least three faculty members selected by the faculty of the student's program. The examination will be constructed to allow the student some degree of freedom in selecting which questions to answer from among a set of questions presented on the examination. The examination requires a synthesis and application of knowledge acquired during the course of study for the doctoral degree; consequently, satisfactory performance in course work does not necessarily guarantee successful performance on the qualifying examination.

Qualifying examinations are ordinarily given in early fall and late spring (September and May). Well before the proposed date of the qualifying examination, students should notify the program director using the Qualifying Exam Checklist, which can be obtained from the program director. The student's doctoral degree plan should be revised at this time to reflect the courses that were actually taken and the current dissertation committee. Forms for (a) adding and deleting courses on the degree plan and (b) changing committee membership are available from the Graduate School's website. Once the program director has verified the relevant items on the checklist, the student will be given permission to proceed with the examination or informed of any remaining requirements.

Following the exam, the chair of the qualifying exam committee will complete the Qualifying Exam Results form and put it in the student's department file. The chair will also provide a copy to the program director, who will email it to the Graduate School.

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

For students in the Cognition & Cognitive Neuroscience area, there are two options for completing the qualifying examination: (1) a written literature-review exam or (2) a two-day timed exam.

For either option, the student and the student's Cognition & Cognitive Neuroscience faculty mentor will jointly select an examination committee of three total members, at least two of whom must be members of the Cognition & Cognitive Neuroscience faculty. Each member of a student's examination committee should speak to the student to give the student a sense of the breadth of coverage and subject matter to be addressed by that faculty member on the examination. Members may wish to give the student a specific reading list to include in their exam.

The student, with consent of their faculty mentor, will choose one of the following exam types. The student must take the exam by the end of the semester following the formal establishment of the examination committee. A single petition for an extension can be submitted 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. Students who entered the program prior to Fall 2016 are exempt from the two-semester rule, if they select option 2.

Option 1: Literature Review Exam

- a. The student, with advice from their faculty mentor, will develop a topic for the literature review that integrates across at least three research areas in Cognition & 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 rather 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.
- b. 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 one time. 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 35 pages should be considered an absolute minimum.
- c. 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 completed literature review must be sent to all members of the committee two weeks prior to the defense.

Grading: Each committee member will provide a grade of Pass, Marginal Pass, Marginal Fail, and Fail for the written and oral components of the exam. Students who receive at least a grade of Marginal Pass for both the oral and written section will pass the overall exam.

If a student receives two Marginal Fails on any section, the committee will discuss the best way to test the student's knowledge of the failed material, which may include minor edits to the document or in-person discussion of material with any number of committee members. If the student receives more than two Marginal Fails or any number of Fails, they will be given one opportunity to redo the section in a resubmitted literature review or a second oral presentation. Students must wait at least one semester to redo a failed section and not more than twelve months.

Option 2: Timed Written Exam

The timed written examination consists of two parts. The first part of the examination will consist of two sections on cognitive psychology contributed by the cognitive faculty on the committee. All students taking the examination from a particular committee will receive the same set of questions. The second part of the examination will consist of two other sections for each student as determined by each student's committee.

Each section should be constructed in such a manner as to allow the student choices among questions or options appropriate for the allowed time period, with an indication of which questions, if any, carry more weight. If appropriate, some suggestion of the time to spend on each question will be provided. The exam will be administered over two days, in four three- hour blocks. This time frame can be modified through approval of the full committee and the director of the experimental program, given appropriate justification.

Grading: Committee members will grade their own sections. The grade options for each section will be Pass, Marginal Pass, Marginal Fail, and Fail. At their discretion, committee members may confer with other committee members before assigning a grade.

Students who receive at least a grade of Marginal Pass for each section will pass the overall exam. For up to any two (but not more) sections on which the student receives a Marginal Fail, or if the student receives one Marginal Fail and one Fail, the committee as a whole will determine an appropriate form of further inquiry to be certain of the student's knowledge of those areas, and no grade for the overall exam will be submitted until that inquiry (expeditiously conducted) is concluded and a final determination of the grade for the sections in question are determined. On the other hand, students receiving a Fail grade on two or more sections, or three or more Marginal Fails, will automatically fail the overall exam. A student who does not pass the qualifying exam will be permitted to retake the Fail and Marginal Fail sections once after a time lapse of four months but not more than twelve months, during a regularly scheduled qualifying exam. The student will need a grade of Pass on all retaken sections in order to pass the exam as a whole.

Preparing for your qualifying exam and completing the actual exam 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

Successful completion of the qualifying examination in Human Factors Psychology documents that the student has 1) mastered the foundations of the field, and 2) become an expert in one of the field's identifiable sub-specialties. Ordinarily, the qualifying examination can be taken three times per year, during the last week of September, the last week in January, or the last week in May. The exact dates will be determined by the HF faculty. The qualifying examination has three sections.

Sections.

Section 1. Fundamentals of Human Factors. This section is a written test of the student's knowledge of the foundations of Human Factors Psychology. It examines whether the student has mastered the fundamentals that every human factors psychologists should know.

Section 2. Research Specialty Area. This section is a written test of students' knowledge in their area of expertise. It assesses whether students have attained a sufficient degree of expertise in their chosen specialty area.

Section 3. Applying Knowledge from the Specialty Area. This is a paper in which the student demonstrates how knowledge from the specialty area can be used to address an applied problem. The problem must be defined narrowly, and must relate to the student's chosen area of expertise.

Grading.

1. Each faculty member will grade the set of questions the student contributed, on the following 5-point scale: 4 = above average pass, 3 = average pass, 2 = marginal pass, 1 = marginal fail, 0 = definite fail.
2. After all faculty members have completed their grading, they will meet to discuss the results.
3. To pass the qualifying examination, the student must pass sections 1, 2, and 3.
4. To pass section 1, the student must pass all subsections (i.e., perception, human factors, human factors methods, and cognitive ergonomics).
 - a. If the student does not pass two or more of the subsections of Section 1, the student must retake section 1 in its entirety after waiting four months, at the next regularly scheduled offering of the exam.
 - b. If the student does not pass one of the subsections of Section 1, the student must complete remedial work which, at the committee's discretion, could be open book, closed book, or both. The exact nature of the remedial work will take into account the strengths and weaknesses of the particular student as demonstrated on the original examination. Thus, students may differ in the format and nature of remedial work.
5. The student must pass each part of the remediation in order to pass qualifying examinations. If the student fails any part of the remediation, the student must retake the failed section in its entirety after waiting four months, at its next regularly scheduled offering. If the student fails at this point, the student will be considered as having failed qualifying examinations for the second time and will not be permitted to continue in the program.

Qualifying Examination in Social Psychology

The purpose of the examination is to allow doctoral students to demonstrate a comprehensive knowledge of the field of social psychology, to show an ability to deal with issues raised by the theory, data, and methods of the field, and to bridge this foundational knowledge with specialized substantive interests. The Graduate School requires that the qualification exam be completed within one year of completing the coursework listed in the doctoral degree plan. Student candidates will identify three social area faculty to serve as members of their qualifying exam committee. First, a bibliography will be provided to the student candidate that specifies 20 articles/readings that the Experimental-Social faculty consider an essential foundation of a comprehensive survey of the field, as represented in this department. These 20 core readings will be included in every student's bibliography. Next, the student candidate will populate the bibliography with at least 50 additional items that are relevant to the student's specialized and substantive areas of interests. After distribution of this bibliography to the qualifying exam committee, members will have two weeks from the date of receipt to populate the bibliography with any additional relevant readings that they feel will supplement important areas of knowledge, related to either foundational or specialized content. The final bibliography (~80-100 items) must be approved by all committee members.

Written Exam and Grading. Students will schedule the written portion of the qualifying exam at their discretion with the chair of the qualifying exam committee (typically their academic advisor). The written portion of the qualifying examination is administered over four consecutive days. Exams will be distributed at 9am on a date chosen by the student/advisor. All exams will be due by 5pm on the fourth day after the exam is released to the student. Students are given eight questions, designed by the current social faculty, and must select seven to answer, with a maximum of three, single-spaced typed pages allowed per response (not including corresponding references). Students may complete their exam 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.

Each question will be graded by two committee members, one of whom was the author of the question, using the 3-point scale below. Scoring is as follows: 2, honors; 1, pass; 0, fail. To pass the exam, students must receive no more than four "Fails" total across all 14 scores. Students who receive 5 or more "Fail" scores and, thus, fail their first attempt at the written exam will be automatically recommended for probation with the Graduate School and will not be allowed to proceed with the oral defense portion of the qualifying examination. The Graduate School requires students 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.

Oral Defense and Evaluation Criteria. Student candidates will schedule the oral defense meeting with their committee members between two and four 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 within the next two weeks. 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.

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.