Psychology, Ph.D.

Graduate study in psychology is designed for students seeking the Ph.D.; students enrolled in the doctoral program may elect to receive a Master of Arts when they have completed the M.A. requirements.

### Requirements

The Doctor of Philosophy program in psychology requires a minimum of 72 s.h. of graduate credit. Students entering without previous graduate work usually require at least four years to complete the program; those entering with previous graduate training usually require three to five additional years in the department, depending on the nature of the earlier preparation.

The Ph.D. program places strong emphasis on preparation for research, teaching, and scholarly endeavor, whether in academic settings or in industrial, governmental, or medical institutions. The intent is to produce graduates who are deeply committed to the study of psychology, familiar with fundamental knowledge about psychological processes, well-trained in the methods and techniques for careful investigation of basic and applied problems, and determined to make contributions to the discipline of psychology and to society.

Graduate training is organized in six broad areas: behavioral and cognitive neuroscience, clinical psychology, cognition and perception, developmental science, health psychology, and social psychology (see "Graduate Training Areas" below). Entering students are expected to identify one of these as their primary area and to follow a program that develops thorough understanding of the substantive material and methods of investigation central to that subdiscipline. While pursuing specialty training, all students must meet course requirements in statistics and research methods and in content areas other than their primary one.

The training area programs are sufficiently flexible to permit students to develop substantial competence in a second training area. Individually tailored programs are possible.

The 72 s.h. required for the Ph.D. includes at least 33 s.h. in the Department of Psychological and Brain Sciences. All students must satisfy, through one of several options, requirements in statistics and research methods. They also must take course work outside the primary training area to develop a background in the discipline of psychology as a whole.

During each of the first two semesters, graduate students ordinarily take three courses—for example, a statistics course, a course or two in the primary training area, and/or an outside area elective. Students also begin their research under the supervision of their advisor and with the guidance of their research advisory committee.

Near the end of the fall semester of the second year, students submit a report describing their research to date. At the beginning of the following semester, they present their research at the annual graduate research symposium.

During subsequent years, students continue selected course work in their training and interest areas and continue to develop their research programs. In addition, they develop a prospectus for the dissertation research and take the comprehensive examination, which covers material in the specialty area. The final year is devoted primarily to conducting the Ph.D. study and preparing the dissertation. In the Ph.D. final examination, students present an oral defense of their dissertation and are expected to relate the dissertation work to broader issues in the discipline of psychology.

### Graduate Training Areas

#### Behavioral and Cognitive Neuroscience

The program in behavioral and cognitive neuroscience focuses on the analysis of learning, memory, attention, motivation, aging, sensory processing, and sleep, in both human and nonhuman subjects, through the application of behavioral and biological principles. Special faculty strengths are in classical and operant conditioning, motivation and emotion, developmental psychobiology, neurobiology of learning, comparative psychology, cognitive neuroscience, neuropsychology, neuroendocrinology, and neuroanatomy. Students in this program have the opportunity to learn state-of-the-art techniques in computer-controlled experimentation and electronic instrumentation as well as advanced analytic and laboratory methods in neurophysiology, nonhuman neurosurgery, histology, neuroimaging, and assays of biochemical activity.

Faculty members in the behavioral and cognitive neuroscience area interact extensively with colleagues from other divisions in the psychology department and from several basic science and clinical departments in the University's Carver College of Medicine, including anatomy, anesthesia, pharmacology, internal medicine, pediatrics, psychiatry, and neurology. These collaborative activities provide excellent research and training opportunities for students interested in emerging interdisciplinary fields such as behavioral medicine.

#### Clinical Psychology

The clinical training program emphasizes a scientific approach to the understanding of psychological disorders and the influence of psychological factors on human relationships and health. The program is accredited by the Psychological Clinical Science Accreditation System (PCSAS), has been continuously accredited by the Commission on Accreditation of the American Psychological Association since 1948, and is a charter member of the Academy for Psychological Clinical Science.

The program is designed for students who are interested primarily in helping to advance scientific understanding of clinical phenomena and in acquiring the research skills necessary to do so. Faculty members and students have active research collaborations with colleagues from many departments in the University's Carver College of Medicine and College of Public Health and at the Iowa City VA Health Care System. Many of the program's faculty members conduct externally funded research programs that use cutting-edge behavioral science to develop improved understanding of mechanisms, processes, and interventions for mental disorders. Faculty members have strong training records, and the program's graduates have gone on to top-tier research, teaching, and clinical service positions.

The clinical psychology program provides the first-hand clinical experience and opportunities to develop clinical competence that are integral to clinical research. It closely integrates practicum experience in the Seashore Clinic with course work and supervised research experience. Advanced students have opportunities to gain additional clinical experience through placement in the Benton Neuropsychology Clinic, Women's Wellness and Counseling Service, adult
and child psychiatry clinics, the Iowa City VA Health Care System, and other venues. After five to six years of on-campus work, including completion of all course work and most of the dissertation, students serve a one-year internship at an approved site.

**Cognition and Perception**

The cognition and perception training area is guided by the philosophy that understanding a specific cognitive process requires an understanding of how it interacts with other cognitive processes. The area pursues empirical rigor and theoretical development, so its research is theory driven and data tested.

Research programs of the area’s laboratories overlap with each other, and most content areas are studied by multiple laboratories and with multiple methodologies. Areas of strength include categorization, computational modeling, cognitive control, language and language learning, learning and memory, visual cognition, attention, and working memory.

Students in perception and cognition take basic courses and seminars in specialty areas, but they devote most of their time to research activities. Students work closely with a faculty mentor at first and then become progressively independent as they gain knowledge and skills. The program encourages students to work with more than one faculty member, both in the program and across the department and the University. Students often combine basic work on cognition with work in areas such as neuroscience, neuropsychology, psychiatry, developmental psychology, and human factors engineering.

**Developmental Science**

The developmental science program focuses on understanding the processes that underlie change as organisms follow a unique developmental pathway from the embryo through adulthood. Students examine influences on development at multiple levels including the influence of genetics, brain organization, cognition, and the dynamic environment. They work to understand the step-by-step accumulation of effects across these levels and over time. Students are taught a broad range of developmental theory and acquire expertise in multiple research paradigms, such as observational research, experimentation, computational methods, and neuroimaging. They also have the opportunity to study and collaborate with faculty members whose research cuts across domains such as perception, cognition, action, social processes, and basic biological mechanisms. Faculty members collaborate with their colleagues across the University, including those in the Carver College of Medicine. These collaborations provide students with a unique breadth of training.

Students take courses in many areas of developmental science as well as in other areas of psychological and brain sciences. They also have research opportunities in early communication and social development, cognitive development in infancy and childhood, neuroimaging in toddlers and adults, and developmental psychobiology. The developmental research group meets regularly in conjunction with other members of the University of Iowa’s DeLTA Center, providing students and faculty members the opportunity to present and discuss their own research as well as to gain exposure to other developmental work being conducted in the department and at the University.

**Health Psychology**

The health psychology program is a research-based doctoral program concerned with application of psychological theory, methods, and treatment to understanding of physical health and illness as well as understanding biobehavioral factors that contribute to disease onset and progression. The program’s perspective is based on the biopsychosocial model, which posits that biological, psychological, and social processes are integrally and interactively involved in physical health and illness.

Graduate training in health psychology emphasizes the integration of knowledge about biological, psychological, and social factors. Students are involved in research whose content and methods reflect the biopsychosocial perspective. Training in health psychology is facilitated by the faculty's longstanding collaborations with medical practitioners and researchers at the University’s Carver College of Medicine and University of Iowa Hospitals and Clinics. Availability of medical populations and state-of-the-art medical technologies afford a unique opportunity for doctoral students in health psychology. Students also are eligible to apply to participate in the Behavioral-Biomedical Interface Training Program.

Research areas of the health psychology program include stress and illness, psychoneuroimmunology, patient adherence, animal models of hypertension and heart failure, medical decision making, women’s health, and psychoneuroimmunology.

Students who are interested in clinical training with a focus on health psychology should apply directly to the clinical program and indicate an interest in clinical health psychology.

**Social Psychology**

The social psychology program offers a variety of perspectives on interpersonal and intrapersonal processes. Examples of research foci of faculty and students are social-cognitive processes, attitudes, stereotyping and prejudice, social comparison, judgment and decision making, moral judgment, emotion, social motivation, parent-child relationships, temperament and individual differences in childhood, and social and emotional development.

Graduate training in the social psychology program is designed primarily to prepare students for careers in psychology research and teaching. In addition to their experiences and course work in the program and in the Department of Psychological and Brain Sciences, students can benefit from opportunities in related academic units at the University, such as the Departments of Sociology, Communication Studies, and Statistics and Actuarial Science, and the Tippie College of Business. Such experience can afford a unique opportunity for doctoral students in health psychology.

Students also are eligible to apply to participate in the Behavioral-Biomedical Interface Training Program.

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Students who are interested in clinical training with a focus on health psychology should apply directly to the clinical program and indicate an interest in clinical health psychology.

**Admission**

Since the graduate program in psychology is designed primarily for students seeking the Ph.D., all applicants are considered on that basis.

The application deadline is December 1. For all materials to be on file by that date, applicants should take the Graduate Record Examination (GRE) General Test in October, and no later than November. The subject test in psychology is not required. Applications may be submitted any time but are considered only once each year—between December 1 and February 1—for admission the following fall. Admission
decisions are based on a composite consideration of prior academic and research performance; letters of reference; scores on the verbal, quantitative, and analytic writing sections of the GRE General Test; and the applicant's statement about background and purpose. Admission materials are reviewed initially by faculty members in the applicant's primary training area.

An undergraduate major in psychology—including a laboratory course in experimental psychology, a course in statistics, and additional work in the natural sciences and in mathematics—is desirable but not required. Students who have not had such a background but are strongly qualified on other grounds may be admitted. They are expected to remedy deficiencies through special course work or independent study before embarking on the regular graduate program.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations of the Graduate College.

### Financial Support

All students admitted to the Ph.D. program in psychology are guaranteed five years of financial support, as long as they make satisfactory progress and remain in good academic standing. Financial support is provided through fellowships, teaching assistantships, research assistantships, and traineeships, depending on merit and availability. No separate application for financial aid is required.

### Career Advancement

Learn more about careers in psychology at the American Psychological Association website.