The Cognitive Aging specialty area in the Psychology PhD program focuses on understanding the effects of aging on cognitive mechanisms and how aging influences neural functioning and behavior. Students study the major methods used to measure various components of cognition. These components include attention, sensation and perception, working memory, episodic memory, cognitive control, language, metacognition, spatial cognition, and problem-solving. Faculty research interests include these areas of cognition as they exist in humans and aspects of comparative psychology (animal behavior and cognition). Some faculty members’ research interests include human cognitive neuroscience, measuring brain activity during cognition with electrophysiological or imaging techniques in persons with or without neurological dysfunction. The program is closely connected to faculty with interests in the Cognitive Aging program, including understanding the effects of aging on cognitive mechanisms and how aging influences neural functioning and cognition.

- PSYC 6018 Principles of Research Design (3 Credit Hrs.)
- PSYC 6000 Responsible Conduct of Research (1 Credit Hrs.)
- PSYC 6019 Statistical Analysis of Psychological Data I (5 Credit Hrs.)
- PSYC 6020 Statistical Analysis of Psychological Data II (5 Credit Hrs.)
- PSYC 6011 Cognitive Psychology (3 Credit Hrs.)
- PSYC 6060 Psychology of Aging (3 Credit Hrs.)
- PSYC 6041 Proseminar in Cognitive Aging (3 Credit Hrs.)
- PSYC 7020 Survey of Cognitive Aging (3 Credit Hrs.)
- PSYC 8020 Seminar in Cognitive Aging (3 Credit Hrs.)

Doctor of Philosophy with a Major in Psychology (Specialization in Engineering Psychology)

The Engineering Psychology Ph.D. program focuses on understanding the capabilities and limitations of human performance from the perspective of perception, cognition, and movement control and applying this knowledge to the design of systems and environments that accommodate those capabilities and limitations.

- PSYC 6018 Principles of Research Design (3 Credit Hrs.)
- PSYC 6000 Responsible Conduct of Research (1 Credit Hrs.)
- PSYC 6019 Statistical Analysis of Psychological Data I (5 Credit Hrs.)
- PSYC 6020 Statistical Analysis of Psychological Data II (5 Credit Hrs.)
- PSYC 6011: Cognitive Psychology (3 Credit Hours)
- PSYC 6014: Sensation & Perception (3 Credit Hours)
- PSYC 7101: Engineering Psych I: Methods (3 Credit Hours)
- PSYC 7102: Engineering Psych II: Displays, Controls, & Workspace (3 Credit Hours)
- PSYC 8040: Seminar in Engineering Psychology (3 Credit Hours)
- PSYC 8040: Seminar in Engineering Psychology (3 Credit Hours) or Psyc 7104: Psychomotor and Cognitive Skills (3 Credit hours)

Doctor of Philosophy with a Major in Psychology (Specialization in Industrial/Organizational Psychology)

The Industrial/Organizational Psychology (I/O) PhD program concentrates on research related to the psychology of work and the workplace. Students develop specialized I/O knowledge, skills, and experiences through an individually tailored program of seminars, elective courses, participation in laboratory- and field-based research projects, and training in local organizations.

Quantitative Core (Must Take All)
The Quantitative Psychology Program emphasizes the interface between quantitative methods and psychological issues. Graduates will be trained as quantitative specialists, with a substantial background in psychology. The exact focus of the student’s studies depends on the current interests of the faculty and the student. Current faculty interests and course offerings include psychometric methods, item response theory, structural equation modeling, multivariate statistics, factor analysis, and multilevel modeling, as well as many other topics in psychological methods and statistics.