Cognition And Perception (CAP) Concentration
B.S. Degree in Psychology

General Information

What is the Cognition and Perception (CAP) Concentration?
The Cognition and Perception (CAP) concentration is a study focus in the Bachelor’s of Science (B.S.) degree in Psychology. It focuses on how the brain works when we interact with our environment. Discoveries about the functioning of the brain have been escalating at an ever more rapid pace in recent decades but have yet to cease to amaze. We now know that we do not passively register information that happens to pass us by but actively select and interpret what we perceive, remember, decide, and act upon, in concert with our immediate and long-term objectives and constraints. This is the case whether we are interacting with people, the environment, or a piece of equipment such as an automobile.

What does the CAP concentration prepare me for?
A solid background in cognition and perception will prepare you well for more advanced studies in experimental psychology and related fields (e.g., graduate studies in cognition, perception, human factors or engineering psychology, medical school, law school) as well as for working in applied settings. The required and recommended courses for the CAP concentration will equip you with not only the domain knowledge about how the brain works but also the analytic skills to evaluate and apply scientific data. A few examples are provided below.

A perception psychologist might ask how the brain perceives 3-D objects from a 2-D display (such as discerning the altitude of an approaching airplane from a cockpit display) and a human factors specialist would use this information to design a display that optimizes perceptual accuracy. A cognitive psychologist and a public policy maker might ask how one divides attention and whether it is safe to drive and talk on the cell phone at the same time. In the court of law, knowing the impact of the power and limits of memory is paramount for gauging the weight of eyewitness testimonies. Understanding basic human reasoning and decision making provides critical information for a training psychologist to devise safeguards and training regimens to ensure medical safety.

Do I have to go to graduate school?
Whether one goes to graduate school depends on one’s career goal. In general, the higher the level of education, the higher the degree of responsibility one has in one’s job, but also a higher degree of intellectual freedom (such as directing one’s own research program or leading a human factors design team in improving the human-computer interface of a newly developed technology). For example, the principle investigator of a research project at an academic institution, a government laboratory, or at a research and development department in industry would typically have an advanced degree; a research assistant would not. An advanced degree is required for teaching at a college level, but many government and industrial jobs do not require one.

What kinds of classes do I need to take?
You will need to take PSY 3210 (Cognition and Learning) and PSY 3710 (Perception), either PSY 3230 (Cognition Methods) or PSY 3730 (Perception Methods), PSY 4020 (Advanced Topics in Research Methods and Experimental Design), two 4000-level Capstone courses from the PSY 4200, PSY 4600, and PSY 4700 series, and CS1160 (Introduction to Computer Programming I).

The CAP Required and Recommended Courses List provides a list of required and recommended courses for the concentration. The list also can be obtained online at, http://www.wright.edu/cosm/departments/psychology/undergraduate/concentrations/cap/, or from the
Psychology Undergraduate Program (PUP) Office in 342 Fawcett. All of the required and recommended courses for the CAP concentration will count towards satisfying your Psychology B.S. degree or your General Electives.

We also strongly recommend that you take additional basic science, mathematics, computer programming, and engineering classes to gain a background in methods of scientific inquiry, analytic reasoning, and research skills.

The Sample Course Plan provides a sample course path for completing all the requirements for the B.S. degree in Psychology with a concentration in Cognition and Perception. It can be obtained online at, http://www.wright.edu/cosm/departments/psychology/undergraduate/concentrations/cap or from the Psychology Undergraduate Program (PUP) Office in 342 Fawcett. We recommend that you work closely with a faculty member engaged in the CAP concentration or an advisor at the Psychology Undergraduate (PUP) office (Fawcett 342) to ensure that you are on track and taking the most advantage of being in the CAP concentration.

**What other preparation will I need?**

We highly recommend that you obtain research experience while you are an undergraduate student. This may be obtained in a variety of ways, including working with a faculty member as a research assistant in his or her laboratory for pay or for Independent Research credit (PSY 4060). We encourage you to speak with the faculty members whose research areas interest you. In addition to getting to know your professors through your classes, you are invited to browse the description of their research areas on our webpage, http://www.wright.edu/cosm/departments/psychology/faculty.html

We also encourage you to participate in the many professional activities available in the department and at the university. Examples of these activities include joining the Psychology Club or Psi Chi, signing up for Independent Reading (PSY 4040) with a faculty member or joining a reading group (many professors have reading groups outside their classes), attend talks and seminars of interest, and attend and present at scientific conferences when feasible.

Practical experience such as participating in an internship or practicum (PSY 4030) in your field of interest could also be valuable. To explore opportunities for practica, you are encouraged to express your interest to your faculty and to monitor the PUP Office bulletin board regularly.

For those planning on going to graduate schools, medical schools, or law schools, find out about the proper preparation for taking the standardized tests in your field (e.g., GRE for graduate schools, MCAT for medical schools, and LSAT for law schools). Although you will most likely not start practicing the tests until a few months before you plan to take your exam, you need to be building up your verbal, quantitative, and analytic skills all along. The actual practice of the tests will familiarize you with the format and test taking tactics only. We recommend that you continue to read to improve your vocabulary and comprehension and to acquire a solid quantitative background throughout your undergraduate tenure and beyond.

**Who are the faculty members that teach CAP courses?**

Full-time faculty members in the CAP concentration include Dr. Kevin Bennett, Dr. Herbert Colle, Dr. John Flach, Dr. Robert Gilkey, Dr. Joseph Houpt, Dr. Ion Juvina, Dr. Tamera Schneider, Dr. Valerie Shalin, Dr. Wayne Shebilske, Dr. Pamela Tsang, Dr. Scott Watamaniuk, and Dr. Dan Weber. Find out more about their research interests at the Faculty webpage, http://www.wright.edu/cosm/departments/psychology/faculty.html
How do I apply for a concentration in Cognition and Perception?

1. Obtain program information and course guidelines from the PUP Office (Fawcett 342) or online at http://www.wright.edu/cosm/departments/psychology/undergraduate/cognitionperception.html

2. Set up an advising appointment at the PUP office or with a CAP faculty member to discuss your interests and questions

3. Apply for a concentration in CAP by filling out an application form available online or at the PUP Office.

Admission criteria are:
(a) completion of at least 48 hours of coursework
(b) completion of PSY 301 and PSY 321 or PSY 371, each with a minimum grade of C
(c) an overall GPA of 3.2,
(d) declaration of psychology as your major, and
(e) completion of an application form.

Students will be notified upon admittance.

Note that although formal admission into the concentration will not be granted unless you have completed at least 48 hours of coursework, we encourage you to explore your interest with the CAP faculty early. Please also note that although the concentration is only open to psychology majors, any student may take the listed courses provided they have the necessary prerequisites.

Where can I learn more?
You can make an advising appointment at the PUP office (psychadv@mail.psych.wright.edu ). We especially encourage you to speak with those CAP faculty members whose research areas interest you (http://www.wright.edu/cosm/departments/psychology/faculty.html).