

**Psych 260: Cognitive Neuroscience**  
**Fall 2024**  
**TuTh 8:30-10:00am**  
**Prof. Rebecca Compton**

This course examines the neural basis of higher mental functions, including brain systems supporting vision, object recognition, attention, memory, spatial functions, language, emotion, decision-making, and social cognition. Major themes include mind/brain relationships, localization of function, and plasticity of the brain. Material will include studies of people with focal brain damage as well as neuroimaging studies. Cognitive neuroscience approaches to clinical conditions will also be explored. Prerequisite: one semester of introductory psychology or introduction to neuroscience.

**Attendance Policy**

Most students learn best when they are regularly present in class and keeping up with the course material. Therefore, class attendance is expected. Obviously, if you are sick, you should not attend class. If you are unable to attend class due to illness or another unavoidable conflict (e.g., job interview, family emergency), it is your responsibility to notify the professor, preferably prior to the class period. Slides from class will be posted on Moodle, but class periods are not recorded and “Zooming in” will not be offered as a make-up strategy. If you miss class, you are responsible for obtaining notes from another student and contacting the professor with any questions about what you missed. Everyone is allowed two absences across the semester with no further questions asked, but additional absences may be considered a matter of concern prompting discussion with the professor about the reasons for absences and plans for making up missed material.

**Policy on Due Dates**

Most students benefit from clear and consistently applied expectations for due dates. Thus, class policy is that assignments should be turned in on time in order to receive full credit. Extensions may be granted in consultation with the professor in cases in which illness, family emergency, or other unanticipated event affects the student’s ability to complete the work by the due date. Having work due in other classes is not typically viewed as a valid reason for an extension. Extensions must be sought before the date on which the assignment is due.

**Textbook**

The main text for the class is Banich & Compton, *Cognitive Neuroscience, 5<sup>th</sup> Ed.* The professor has some free copies available for loan, a copy is available on reserve at the Science library, or you can purchase your own copy through the bookstore. Other readings are available on Moodle.

## Graded Assignments

- 10% - Open-book quiz on neuroanatomy/methods – take between Sept. 12 and Sept. 17
- 20% - Open-book exam on vision – take between Oct. 11 and Oct. 22
- 20% - Essay: applying higher-level cognition to everyday activity - due on Nov. 26
- 25% - Final paper: due by end of exam period
- 20% - Brief responses to readings
- 5% - Effort, participation, regular attendance

The course Moodle site contains more detailed information about all assignments.

## Schedule of Topics

| <b>Week</b> | <b>Topic</b>                   | <b>Dates</b>                  | <b>Reading</b>                     |
|-------------|--------------------------------|-------------------------------|------------------------------------|
| 1           | Overview, Basic Anatomy        | Sept. 3, 5                    | B&C Ch 1                           |
| 2           | Methods                        | Sept. 10, 12                  | B&C Ch 2, 3                        |
| 3           | Early Vision                   | Sept. 17, 19                  | B&C Ch 5 (pp. 129-136)             |
| 4           | Visual Cortex                  | Sept. 24, 26                  | B&C Ch 5 (remainder); Yong article |
| 5           | Object and Face Recognition    | Oct. 1, 3                     | B&C Ch 6; Arcaro article           |
| 6           | Spatial Cognition              | Oct. 10<br>(no class Oct. 8)  | B&C Ch 7                           |
|             | <b>- FALL BREAK -</b>          |                               |                                    |
| 7           | Motor Control                  | Oct. 22, 24                   | B&C Ch 4                           |
| 8           | Language                       | Oct 29, 31                    | B&C Ch 8                           |
| 9           | Memory                         | Nov. 5, 7                     | B&C Ch 9; Sacks, Johnson article   |
| 10          | Attention, Executive Functions | Nov. 12, 14                   | B&C Ch 10                          |
| 11          | Executive Functions            | Nov. 21<br>(no class Nov. 19) | B&C Ch 11; Liston article          |
| 12          | Emotion                        | Nov. 26                       | B&C Ch 12                          |
| 13          | Emotion, Social Cognition      | Dec. 3, 5                     | B&C Ch 13                          |
| 14          | Social Cognition, Wrap-up      | Dec. 10, 12                   | Maza article                       |