

## Physiological Psychology, 830:313

T&Th, 1:40 – 3pm  
SEC 111

Dr. Otto

327 Busch Psych. Bldg.  
Office Hours: T 12-1 and by appt.

**Required Text:** Physiology of Behavior, N. Carlson, Tenth Edition

**Course Objectives and Prerequisites:** This course will focus on the complex relationship between the brain and behavior, and in doing so will touch on a number of different areas of research ranging from philosophy to neuroanatomy to neurochemistry to schizophrenia. As we will see, psychological processes of all types are largely determined by an interaction between environment and the nervous system. Because of the nature of the material, we will be discussing a significant amount of “biology”; however, having taken a college-level biology course is not required. You should also be comfortable with looking at and interpreting graphs. The only prerequisite is Introduction to Psychology.

**How to do well in this course:** Because we will be examining broad and complex issues in considerable detail, and because I will often be presenting material that is not included in the textbook, ***it is imperative that you come to every class and keep up with the reading. Do not wait until a few days before the exam to begin studying.*** You will also need to take very good notes - under no circumstances should you rely on one of the note-taking services to provide you with a coherent or meaningful summary of the lectures. The best strategy is to actively re-write your notes soon after every class. By “actively” I do not mean merely copying them, I mean to critically examine whether you truly understand what we covered that day. If you do not, be sure to ask questions during the next class period, or come to my office hours to clear up any confusion. Finally, within a couple of days after a test, you should come to office hours to have a look at your exam, see where you made your mistakes, and discuss them with me if you have any questions.

**Exams and Grading:** There will be three exams. Exams will be comprised of multiple choice questions. The first two exams will each have 50 questions, the final will have 70 questions. Twenty questions on the final will be “cumulative”, the other 50 will address material covered after the second exam. Grades will be based on a 90-80-70-60%, A-B-C-D scale (yes there are plusses for Bs, Cs and Ds). The denominator to calculate your percent correct will be the highest point total obtained in the class, not necessarily the total number of questions on the exams. Thus, if at the end of the semester the highest scoring student obtained 160 points out of the possible 170, that high score (160) will serve as the denominator to calculate the percent correct for the rest of the class. So for example, if you obtained a total of 145 points and the highest point total obtained by someone was 160, your percent correct would be 145/160, or 90.6%, and you would receive an A. ***No makeup exams are available without prior approval and/or a letter from your dean explicitly verifying an illness or other significant reason for having missed an exam.*** Finally, there is no extra-credit available at the end of the semester

## Course Calendar

| Date | Topic                                  | Assigned Reading                       |
|------|--|--|
| 1/18 | Intro                                  | Ch. 1                                  |
| 1/20 | “                                      | ”                                      |
| 1/25 | Neuronal Structure and Function        | Ch. 2                                  |
| 1/27 | “                                      | ”                                      |
| 2/1  | Central and Peripheral Nervous Systems | Ch. 3                                  |
| 2/3  | “                                      | ”                                      |
| 2/8  | Psychopharmacology                     | Ch. 4 (pp. 110 -128 only)              |
| 2/10 | “                                      | ”                                      |
| 2/15 | Review                                 |  |
| 2/17 | <b>Test 1</b>                          |  |
| 2/22 | Vision                                 | Ch. 6 (skip sections on Color, Spatial |
| 2/24 | “                                      | Frequency, and Texture)                |

|      |                                     |  |
|------|-------------------------------------|--|
| 3/1  | “                                   |  |
| 3/3  | Somatosensation                     | Ch. 7 (pp. 237-249)                    |
| 3/8  | Neural Plasticity                   | Readings on Reserve                    |
| 3/10 | Neural Plasticity Continued         |  |
| 3/15 | <b>NO CLASS – SPRING BREAK</b>      |  |
| 3/17 | <b>NO CLASS – SPRING BREAK</b>      | ”                                      |
| 3/22 | Neural Plasticity Continued         | “                                      |
| 3/24 | Audition & Olfaction                | Ch. 7 (appropriate sections)           |
| 3/29 | Control of Movement                 | Ch. 8                                  |
| 4/5  | <b>Test 2</b>                       |  |
| 4/7  | Emotion                             | Ch. 11                                 |
| 4/12 | Emotion                             | ”                                      |
| 4/14 | Learning and Memory                 | Ch. 13, pp. 440-454, 458-459, 465-484. |
| 4/19 | Learning and Memory Continued       | “                                      |
| 4/21 | Learning and Memory Continued       | “                                      |
| 4/26 | Schizophrenia & Affective Disorders | Ch. 16                                 |
| 4/28 | Review                              |  |

**FINAL EXAM:** The final exam for this course will be held in the regular classroom on Monday, May 9th, at 8am.