

# Physiological Psychology

01:830:313

Dr. Mark West

**Phone:** 848-445-8886

**Email:** [markwest@rutgers.edu](mailto:markwest@rutgers.edu)

**Office:** Busch Psychology Bldg. Room 225

**Office hours:** Tuesday 6<sup>th</sup> period (after lecture) or by appointment any time (if you want to make an appointment, email me a time and day when you can come to my office).

**Course Website:** Sakai

**Textbook Website:** Revel

**Teaching Assistant:** Hector Quinones [hector.g.138@gmail.com](mailto:hector.g.138@gmail.com)

Office hours:

## REQUIRED TEXTBOOK

**Physiology of Behavior** by Neil Carlson, 12th edition.

ISBN for the Revel version of the text: 0134320824

**Revel** is the textbook website, which includes useful videos, teaching aids, practice test questions, and much more.

## LEARNING GOALS

To understand:

- how a neuron generates an action potential
- that most drug effects on behavior involve altered neurotransmission at synapses
- how the major parts of the nervous system are connected (neural circuits)  
“Law of Specific Nerve Energies”
- how a few of the major systems work
- how neural circuits change as a function of learning

## GRADING & POLICIES:

**Exam scores will be the only determinants of your grade; no credit will be given for extra work. The only homework is to study the textbook and use Revel’s teaching aids.**

**Three exams of equal weight will comprise multiple choice and diagram questions. The third (final) exam will NOT be cumulative and will occur according to the finals week schedule. Your final grade will be determined from the average of your numeric scores on the three exams. These averages will be curved and will be shown with your final grade.**

**On days of exams please bring #2 pencils to mark your Scantron sheets.**

Missing an exam will not be excused, except in an emergency (you must provide written documentation, such as a physician's note); and must notify the professor on or before the exam date. (Make-up exams are difficult.)

The best ways to succeed are to:

- read each assignment before attending the corresponding lecture
- print the power point lecture beforehand, for taking class notes
- ask questions during class time
- re-read your notes ~24 hours after class
- study the textbook and apply yourself intensively to Revel study aids such as pre-test and post-test questions – focus on what you missed (results are NOT “sent to Instructor”)
- study with classmates
- attend every lecture and pay attention.

My not taking attendance does not mean I don't care whether you attend class. I present material so you can understand it, and my exam questions test your understanding achieved in class.

It is important to keep on schedule with reading assignments because of the amount of material, and because some chapters are more difficult than others. This will be an in-depth, difficult course aimed at the highest undergraduate level.

The exams are not easy. But you can make them seem easy if you seriously study and do all of the above.

\*\*\*Academic Integrity: Ethical conduct is the obligation of all students and faculty. Any involvement with cheating will be reported to the Dean's Office and can result in expulsion from the University.\*\*\*

### SCHEDULE OF CLASS MEETINGS & ASSIGNED READINGS:

| Topic of Class Meeting  | Assigned Reading:<br>Carlson Learning Objectives (LO) | Important Figures in Carlson Text (most appear in .ppt lectures)  |
|-------------------------|---|---|
| Introduction            | Ch 1  | Figs. in Ch. 1<br>1.3   |
| The Neuron              | Ch. 2<br>LO 2.1, 2.2, 2.5 through 2.17                | Figs. in Ch. 2<br>2.3, 2.4, 2.6, 2.9, 2.15, 2.16,<br>2.17, 2.18, 2.20, 2.21, 2.22,<br>2.24, 2.26 through 2.31 |
| Synaptic Transmission   | (Ch. 2 cont.)   |   |
| Neurophysiology         | (Ch. 2 cont.)   |   |
| Neurophysiology (cont.) | (Ch. 2 cont.)   |   |

|   |   |  |
|---|---|--|
| Neuroanatomy<br><a href="#">Click here for Handout #1 (required list of structures to identify in Exam I)</a>                                     | Ch. 3<br>LO 3.7 through 3.13<br>(ignore neuroanatomical terms that are not mentioned in lecture)  | Figs in Ch. 3<br>3.13, 3.14c, 3.15, 3.27, 3.29<br>All figures in power point file                  |
| Neuroanatomy  | (Ch. 3 cont.)   |  |
| Neuroanatomy (cont.)  | (Ch. 3 cont.)   |  |
| <b>EXAM I</b><br>(after the first 8 class meetings)   |   |  |
| Psychopharmacology<br><a href="#">Click here for Handout #2 (required) and use Tables 4.2, 4.3, 4.5, and 4.6 to help you fill out the handout</a> | Ch. 4<br>LO: 4.1, 4.2, 4.3, 4.4, 4.6 through 4.13   | Figs in Ch. 4<br>4.3, 4.4, 4.5, 4.7, 4.8, 4.9, 4.10, 4.12, 4.14, 4.16, 4.17, 4.18, 4.19, Table 4.1 |
| Psychopharmacology (cont.)  | <a href="#">YouTube film: The Case of the Frozen Addict (also at Douglass and possibly Livingston Library Media Centers)</a><br>Exam II will include questions on film. |  |
| Psychopharmacology (cont.)  |   |  |
| Visual System   | Ch. 6<br>LO: 6.1, 6.4, 6.8, 6.21  | Figs in Ch. 6<br>6.6, 6.8, 6.10, 6.16, 6.17, 6.35,   |
| Visual System (cont.)   | (Ch. 6 cont.)   |  |
| Auditory, Somatosensory, Vestibular Systems   | Ch. 7<br>LO: 7.1, 7.4, 7.5, 7.6, 7.13, 7.16   | Figs in Ch. 7<br>7.1, 7.2, 7.5, 7.7, 7.8, 7.22, 7.23, Table 2                                      |
| Motor System  | Ch. 8<br>LO: 8.4, 8.7   | Figs in Ch. 8<br>8.6, 8.8, 8.13, 8.14<br>Fig. 2.12 (Ch. 2)   |
| Motor System (cont.)  |   |  |
| <b>EXAM II</b><br>(after the second 8 class meetings)   |   |  |
| Emotion   | Ch. 11<br>Ch. 3 re-read pg. on hypothalamus   | Figs in Ch. 11<br>Figs in Ch. 3 to re-visit  |
| Stress disorders<br>Psychneuroimmunology  | Ch. 17<br>(no need to memorize immune cell types)   | Figs in Ch. 17   |
| Learning & Memory   | Ch. 13<br>(classical conditioning) (including reconsolidation)  | Figs in Ch. 13   |
| Learning & Memory (cont.)   |   |  |
| Learning & Memory (cont.)   |   |  |

|   |        |                |
|---|--------|----------------|
| Drug Abuse  | Ch. 18 | Figs in Ch. 18 |
| <b><i>EXAM III (final exam)</i></b><br><i>Time and date according to<br/>Rutgers finals week schedule:<br/>Friday Dec 16, 8AM</i> |        |                |