

Physiological Psychology

01:830:313

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Office hours: Tuesday 4th period (before 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: MyPsychLab

Teaching Assistant:

REQUIRED TEXTBOOK

Physiology of Behavior by Neil Carlson, Third Custom Edition for Rutgers University

Includes: Brain Atlas for 830:313, A Custom Edition for this section of the course

MyPsychLab accompanies this textbook and includes useful videos, teaching aids, practice test questions, and much more.

Note about the textbook: This custom edition is specified under the name of Dr. West at Barnes & Noble and New Jersey Books. Efforts have been made to minimize the cost. This custom edition is the equivalent of the 11th edition, but the custom edition includes the Brain Atlas. So if you were to buy the 11th edition separately, you would also need to buy a brain atlas, which would be more expensive. If you use previous edition such as the tenth edition, you are responsible for converting page numbers and figure numbers, which are different from those assigned on the syllabus (see below).

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.

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
- read your notes ~24 hours after class
- study the textbook and apply yourself intensively to 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.

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 COURSE MEETINGS & ASSIGNED READINGS:

Topic of Class Meeting	Assigned Reading in Carlson Text	Important Figures in Carlson Text
Introduction	Ch 1 pg: 5-8, 12-13, 19-20, 22-26	Figs. in Ch. 1 1.3 thru 1.6, 1.10, 1.15, 1.18
The Neuron	Ch. 2 pg: 28-37, focusing on FUNCTIONS of organelles and glia; also pg. 41-61	Figs. in Ch. 2 2.1, 2.4, 2.5, 2.10, 2.17, 2.18 thru 2.25, 2.27, 2.30, 2.33, 2.35 thru 2.38
Synaptic Transmission	(Ch. 2 cont.)	

Neurophysiology	(Ch. 2 cont.)	
Neurophysiology	(Ch. 2 cont.)	
Neuroanatomy Click here for Handout #1 (required)	Ch. 3 Pg. 67-69; 80-97 (ignore all neuroanatomical terms that are not mentioned in lecture)	Figs in Ch. 3 3.1, 3.2, 3.12, 3.13, 3.19, 3.24, 3.25; brain atlas in back of textbook
Neuroanatomy	(Ch. 3 cont.)	
Neuroanatomy	(Ch. 3 cont.)	
EXAM I (after the first 8 class meetings)		
Psychopharmacology Click here for Handout #2 (required) and use Table 4.3 to help you fill out the handout	Ch. 4 Pg 100-124 (not including "Lipids")	Figs in Ch. 4 4.1 thru 4.6; 4.8 thru 4.19. Use Table 4.3 to help fill out Handout #2.
Psychopharmacology	YouTube film: The Case of the Frozen Addict (also at Douglass and possibly Livingston Library Media Centers)	
Psychopharmacology	Exam II will include questions on film.	
Visual System	Ch. 6 Pg. 168- 175; 181-183; 185-6 (including Modular organization)	Figs in Ch. 6 6.1, 6.4, 6.5, 6.6, 6.12 thru 6.15; 6.22, 6.24 thru 6.27; 6.29, 6.34
Visual System		
Auditory, Somatosensory, Vestibular Systems	Ch. 7 Pg. 208-210; 215-219; 231-233	Figs in Ch. 7 7.1, 7.2, 7.3, 7.5, 7.11, 7.19,
Motor System	Ch. 8 Pg. 265-276 (up to but not including "Deficits...")	Figs in Ch. 8 8.8, 8.10, 8.13 thru 8.18
Motor System		
EXAM II (after the second 8 class meetings)		
Emotion	Ch. 11 Pg. 360-363 Ch. 3 re-read pg. 87-88 on hypothalamus	Figs in Ch. 11 11.1, 11.2, 11.3 Figs in Ch. 3 to re-visit 3.18, 3.19, 3.25
Stress disorders Psychoneuroimmunology	Ch. 17 Pg. 601-611 (no need to memorize immune cell types)	Figs in Ch. 17 17.11, 17.12, 17.13, 17.17, 17.24, 17.26

Learning & Memory	Ch. 13 Pg. 435-443; 452 (classical conditioning) - 466; 469-475 (including reconsolidation)	Figs in Ch. 13 13.1, 13.2, 13.4 thru 13.11; 13.18, 13.20, 13.21, 13.23, 13.24, 13.27 thru 13.29; 13.33 thru 13.40
Learning & Memory		
Learning & Memory		
Drug Abuse	Ch. 18 Pg. 615-621	Figs in Ch. 18 18.1 thru 18.3; 18.9, 18.11, 18.18
<i>EXAM III (final exam)</i> <i>Time and date according to Rutgers finals week schedule:</i> <i>Friday May 8, noon</i>		