

Psychology 260

Physiological Psychology

Instructor: Amy Spilkin, Ph.D.
Office Hours: Before and after class and by appointment
Location: LS-24C
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Required Prerequisite: Psychology 101 and Biology 100

Materials:

Kalat, James W. Biological Psychology, Ninth Edition. Thomson/Wadsworth Publishing.

Course Description:

This course is a general presentation of physiological psychology. It provides introductory information on the different physiological systems involved in behavior and cognition and will allow the student to understand the basic processes and applications of the physiology involved in psychology.

Course Objectives:

- 1) To learn the physiology of the nervous system, including an understanding of the neuron, the nerve impulse, and the synapse.
- 2) To learn the divisions of the nervous system from the spinal cord to the different parts of the brain as well as nervous system development.
- 3) To introduce the different physiological systems involved in behavior (e.g., vision, hearing, language, etc.)
- 4) To learn the behavioral consequences of damage to the physiological systems.

Class organization

This class will consist mostly of lectures. Movies and demonstrations will be incorporated into the schedule whenever possible. Questions about movies and demonstrations are “fair game” for the exams.

Required Assignments:

- **Class attendance**
Attendance is expected and will contribute to your success in this course. Approximately 50% of test questions will come directly from in class lecture material.
- **Exams**
There will be four exams, each of which will contribute to 25% of your final grade in this course. The fourth exam will be given on the last day of class and will be the same format as the other exams (non-cumulative). Exams will include multiple choice, matching, and short answer questions. Each student will need to bring a red ParSCORE Scantron on the day of the test as well as a number 2 pencil. Latecomers will not be allowed to take the test. Emergency situations resulting in missed exams must be arranged prior to the exam. All make-up exams will be essay exams.

- **Grading**

There are a total of 400 points possible in this class.

4 exams (100 points each) 400 pts

Grades will be based on a modified-curve. The top score on each exam will be equal to 100%, and students scoring within 10 points of the top score will receive As. Bs, Cs, Ds, and Fs will be assigned in 10 point decrements from the top score on each exam.

- **Extra Credit**

There will be 4 extra credit pop quizzes given during the semester. Each quiz will consist of 5 questions from the reading assigned for that day. Each question will be worth 1 point of extra credit and the total possible for the semester is 20. This is equivalent to raising each test score by ½ a grade (e.g., from a B+ to an A-). There will be not make-up quizzes for ANY reason.

- **Class Material**

You will need 1 large red Parscore scantron and 7 small red Parscore scantrons. Scantrons will be used for exams and pop quizzes, so you will be expected to have a scantron with you for at every class (since you will not know when a pop quiz will be given).

Class Cheating and Plagiarism Policy

- Plagiarism is defined at SDSU as “the act of incorporating ideas, words, or specific substance of another, whether purchased, borrowed, or otherwise obtained, and submitted to the University as one’s own work to fulfill academic requirements without giving credit to the appropriate source.” In this course, plagiarism refers to copying any material from any published or unpublished (written work from another student) work as your own. It is expected that you independently prepare all assignments for this course.
- *Plagiarism or cheating will result in a failing grade for the semester, and will be reported to the SDSU Office of Judicial Affairs for investigation.*

Crashing Policy

As many “crashers” as possible will be accepted into the class with priority being given to students with seniority. Until a final decision can be made as to how many students will be allowed to add the class, attendance of “crashers” will be taken every day and those students who have not continuously attended the class will have lower priority.

*** The days marked TBA on the syllabus will be class days. These days will be used to either catch up if we have not covered all of the material in that section, for films, and/or to review and answer any questions before the exam.

Date	Topic	Readings
1/22	Introduction	
1/24	2.1 The Cells of the Nervous System	Ch. 2, p. 30-38
1/29	2.2 The Nerve Impulse	Ch. 2, p. 39-48
1/31	3.1 The Concept of the Synapse 3.2 Chemical Events at the Synapse	Ch. 3, p. 52-56 Ch. 3, p. 58-69
2/5	4.1 Structure of the Vertebrate Nervous System 4.2 The Cerebral Cortex	Ch. 4, p.82 - 95 Ch. 4, p. 96 – 103
2/7	4.3 Research Methods	Ch. 4, 105 – 116
2/12	5.1 Development of the Brain	Ch. 5, p. 122 – 135
2/14	5.2 Plasticity After Brain Damage	Ch. 5, p. 137 – 146
2/19	TBA	
2/21	EXAM 1	
2/26	6.1 Visual Coding and the Retinal Receptors	Ch. 6, p. 152-164
2/28	6.2 The Neural Basis of Visual Perception	Ch. 6, p. 166 – 182
3/4	7.1 Audition	Ch. 7, p. 196 – 204
3/6	7.2 The Mechanical Senses 7.3 The Chemical Senses	Ch. 7, p. 205 - 213 Ch. 7, p. 215 – 226
3/11	8.1 The Control of Movement 8.2 Brain Mechanisms of Movement 8.3 Disorders of Movement	Ch. 8, p. 232 – 239 Ch. 8, p. 240 – 253 Ch. 8, p. 254 – 262
3/13	TBA	
3/18	EXAM 2	
3/20	9.1 Rhythms of Waking and Sleep 9.2 Stages of Sleep and Brain Mechanisms 9.3 Why Sleep? Why REM? Why Dreams?	Ch. 9, p. 266 – 274 Ch. 9, p. 275 – 285 Ch. 9, p. 286 – 292
3/25	12.1 What is emotion 12.2 Attack and Escape Behaviors 12.3 Stress and Health	Ch. 12, p. 354 - 360 Ch. 12, p. 361 - 374 Ch. 12, p. 376 – 380
3/27	13.1 Learning, Memory, Amnesia, and Brain Functioning 13.2 Storing Information in the Nervous System	Ch. 13, p.384 – 403 Ch. 13, p. 404 – 411
4/1	SPRING BREAK	
4/3	SPRING BREAK	
4/8	14.1 Lateralization of Function 14.2 Evolution and Physiology of Language	Ch. 14, p. 416 – 428 Ch. 14, p. 429 – 441
4/10	TBA	
4/15	EXAM 3	
4/17	15.1 Substance Abuse Part 1	Ch. 15, p. 452 – 458
4/22	15.1 Substance Abuse Part 2	Ch. 15, p. 452 – 458
4/24	15.2 Mood Disorders	Ch. 15, p. 459 – 469
4/29	7.3 Attention Deficit Disorder & Autism and Developmental Disorders	Ch. 14, p. 442 – 447
5/1	15.3 Schizophrenia	Ch. 15, p. 470 – 481
5/6	TBA	
5/8	FINAL EXAM IN CLASS	