

**PSY 860**  
**Seminar in Physiological Foundations of Behavior**  
**Spring 2011**  
**T/TH 2:00-3:15 pm**  
**6363 Alvarado Ct., Conference Rm. B**

**Instructor:** Dr. Susan Brasser  
**Office:** 6363 Alvarado Ct., Suite 200, Rm. V (until Feb. 18)  
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**Office hours:** By appointment

**Text:** Breedlove, S.M., Watson, N.V., and Rosenzweig, M.R. (2010)  
Biological Psychology (6<sup>th</sup> ed.)  
Sinauer Associates, Inc.

**Additional Reading:** In addition to the text, we will be reading selected journal articles related to student presentation topics during the latter part of the course.

**Course Objectives**

The primary objectives of this course are for students to gain advanced knowledge of the neurobiological mechanisms that underlie thought, emotion and behavior and to evaluate and present research in the field of behavioral neuroscience both orally and in writing. During the first part of the course, we will review basic principles of nervous system function, neuronal communication and the structure and organization of the nervous system. The latter part of the course will involve student presentations focused on specialized topics including the physiology of aggression, stress, sexual behavior, appetite regulation, and various psychopathological and neurological disorders. By the end of this course, students will have acquired an in-depth understanding of nervous system function as it relates to behavior and will be able to utilize this knowledge to synthesize and evaluate current research in the field of behavioral neuroscience.

**Office Hours**

Office hours are by appointment. You may contact me via phone, e-mail, or speak with me after class to set up an appointment or ask any questions you have regarding the course.

**Resources**

A Blackboard site is available for this course at <https://blackboard.sdsu.edu/webapps/login> that will contain the syllabus, PowerPoint slides for lectures and presentations, readings, and links to websites of interest. You will need your Red ID and password to log onto the site. My contact information and any announcements regarding the course will also be posted on this site.

If you need assistance using Blackboard, you may contact the Student Computing Center on campus or link to SDSU Blackboard Support at <http://its.sdsu.edu/blackboard/>

**Course Evaluation**

Grades will be based on two exams (each worth 30% of your grade), an oral class presentation (20%), and a written paper (20%). All exams will consist of essay and short answer questions. The second exam will cover information from student presentations and related articles, and therefore class attendance is critical and expected for this graduate seminar.

*Oral Presentation:* Your class presentation will consist of a 45-min PowerPoint talk, and topics will be assigned based on individual student interests. I will provide a list of potential topic ideas and will also consider alternative topics that fit with the goals of the class and with your interests. The schedule listed on the syllabus following Exam 1 (beginning March 3) represents a general outline of presentation topics and is subject to change based on student interests and final assignments. Your presentation will be graded based on content as well as clarity of presentation, specifically your ability to communicate scholarly information on your topic effectively to the class.

*Written Paper:* Your written paper will be based on the same topic as your oral presentation and should be a minimum of 10 pages, not including references. Your paper will be graded based on your ability to synthesize knowledge on the topic, thoroughness and accuracy of content, and clarity of writing. Papers are due Thursday, April 28.

**Policy on Make-up Exams:** Make-up exams will only be given under very rare circumstances when prior arrangements are made with me, and will include 5 additional essay questions (1-2 paragraphs each) over and above that of a normal exam.

**Final Course Grade:**

<u>Percentage</u>	<u>Grade</u>
94-100	A
90-93	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
<60	F

**Academic Dishonesty**

Academic dishonesty in any form will not be tolerated and may result in your expulsion from the university. See the Student Code section of your Student Handbook for definitions and regulations regarding cheating and plagiarism.

**Withdrawals and Incompletes**

The University policy on withdrawals and incompletes is printed in the 2010-2011 SDSU General Catalog.

## Course Schedule

	<u>Date</u>	<u>Topic</u>	<u>Reading</u>
Week 1	Jan. 20	Introduction	
Week 2	Jan. 25 Jan. 27	Cellular Anatomy of the Nervous System Neurophysiology/Neuronal Signaling	Chap. 2 (pp. 23-35) Chap. 3 (pp. 57-73)
Week 3	Feb. 1 Feb. 3	Neurophysiology/Neuronal Signaling (cont.) Synaptic Transmission	Chap. 3 (pp. 73-85)
Week 4	Feb. 8 Feb. 10	Neurotransmitters and Receptors Neurochemistry	Chap. 4 (pp. 87-94)
Week 5	Feb. 15 Feb. 17	Neuropharmacology of Drug Abuse Gross Anatomy of the Nervous System	Chap. 4 (pp. 94-116) Chap. 2 (pp. 35-56)
Week 6	Feb. 22 Feb. 24	Gross Anatomy of the Nervous System (cont.) 3-D Neuroanatomy Lab	
Week 7	Mar. 1 Mar. 3	<b>EXAM 1 (Tuesday, March 1)</b> Stress/Autonomic Nervous System	Chap. 15
Week 8	Mar. 8 Mar. 10	Methods for Studying the Human Brain Sleep and Circadian Rhythms	Ch. 2 (50-56), Ch. 3 (81-85) Chap. 14
Week 9	Mar. 15 Mar. 17	Sex Determination/Sexual Behavior Appetite Regulation/Ingestive Disorders	Chap. 12 Chap. 13
Week 10	Mar. 22 Mar. 24	Psychopathological Disorders Psychopathological Disorders (cont.)	Chap. 16
Week 11	Mar. 29 Mar. 31	<b>SPRING BREAK—NO CLASS</b> <b>SPRING BREAK—NO CLASS</b>	
Week 12	Apr. 5 Apr. 7	Neurobiology of Aggression Alzheimer's Disease	Chap. 15 Chap. 7
Week 13	Apr. 12 Apr. 14	Disorders of Movement <b>NO CLASS—AChemS Meeting</b>	Chap. 11
Week 14	Apr. 19 Apr. 21	Disorders of Movement (cont.) Adult Regeneration/Stem Cells	
Week 15	Apr. 26 Apr. 28	Developmental Disorders Evolution of Brain and Behavior <b>PAPERS DUE APRIL 28</b>	Chap. 7 Chap. 6
Week 16	May 3 May 5	Epigenetics/Epigenomics Final Discussion	
Week 17	May 10	<b>EXAM 2 (Tuesday, May 10)</b>	