

BIO 4813
Brain and Behavior, Sect 001
CRN 22203
SB 2.03.12
Tuesdays and Thursdays 3:30-4:45 pm

Joe L. Martinez
BSB 3.03.20A
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OH After Class Tuesdays and Thursdays

Text: Breedlove, S. M., Rosenzweig, M.R., and Watson, N. V. *Biological Psychology*, fifth edition, Sunderland, MA, Sinauer Associates, Inc., 2007.

The purpose of this course is to teach you the fundamental workings of the brain and how these workings relate to various behaviors, such as perception, sensation, hormonally controlled behaviors, emotion and mental disorders, learning and memory, and cognitive functioning.

There will be five exams during class and a final. Exams will not be given early because of travel. Each exam will have 25 questions. The final will cover the last three chapters covered in the class. Grades will be based on the class curve. Make-up exams will be given in the case of illness or family tragedy. These cases must be documented by doctors, priests, police, etc. Extra credit worth a letter grade may be obtained by writing a 10 page research paper on subject matter covered in this course. The topic must be approved by the instructor. The research paper has to be turned in by April 29th in order to receive credit.

Jan 15 Introduction and Chapter 1 Biological Psychology Scope and Outlook
Jan 17 Chapter 2 Functional Neuroanatomy: The Nervous System and Behavior
Jan 22 Chapter 3 Neurophysiology: The Generation and Integration of Neural Signals
Jan 24 Review for Exam 1
Jan 29 Exam 1 (Chapters 1-3)
Jan 31 Chapter 4 The Chemical Basis of Behavior : Neurotransmitters and Neuropharmacology
Feb 05 Chapter 5 Hormones and the Brain
Feb 07 Chapter 6 Evolution of the Brain and Behavior
Feb 12 Review for Exam 2
Feb 14 Exam 2 (Chapters 4-6)
Feb 19 Chapter 7 Life Span Development of the Brain and Behavior
Feb 21 Chapter 8 General Principles of Sensory Processing, Touch and Pain
Feb 26 Chapter 9 Hearing, Vestibular Perception, Taste, and Smell
Feb 28 Review for Exam 3
Mar 04 Exam 3 (Chapters 7-9)
Mar 06 Chapter 10 Vision: From Eye to Brain
Mar 11 Chapter 12 Sex: Evolutionary, Hormonal, and Neural Bases
Mar 13 Chapter 13 Homeostasis: Active Regulation of Internal States
Mar 18 Spring Break
Mar 20 Spring Break
Mar 25 Review for Exam 4
Mar 27 Exam 4 (Chapters 10, 12, and 13)
Apr 01 Chapter 14 Biological Rhythms, Sleep, and Dreaming
Apr 03 Chapter 15 Emotions, Aggression, and Stress
Apr 08 Chapter 16 Psychopathology: Biological basis of Behavioral Disorders
Apr 10 Review for Exam 5 (Chapters 14-16)
Apr 15 Exam 5
Apr 17 Chapter 17 Learning and Memory: Biological Perspectives and
Apr 22 Chapter 18 Learning and Memory: Neural Mechanisms
Apr 24 Chapter 19 Language and Cognition
Apr 29 Review for the Final Exam (Chapters 17-19)