

Psyc 375 (001) – Fall 2011

Brain and Behavior I

Tuesday and Thursday 3:00 – 4:15pm

Robinson Hall B-218

Instructor: Ashley Safford (ahamlin2@gmu.edu)
Office hours: Tuesday 1:30 – 2:30pm, or by appointment
DKH 1020B, Office phone: (703)993-5421

Deadlines: Last day to add – September 6
Last day to drop – September 30

Required Text: Bear et al. (2006) *Neuroscience: exploring the brain*, 3rd Ed., Lippincott Williams & Wilkins: Baltimore, MD <http://www.campusstores.com/gmu/index.asp>

Course objectives

- Introduce the fundamentals of neuroscience, including the electrical properties of neurons, synaptic transmission and the structure of the nervous system
- Provide an overview of the neural underpinnings of the senses

Assignments:

- 1) **Exams:** There will be a total of four exams. Each will include multiple choice, fill-in-the-blanks and/or short essay questions from lecture material and readings. *The final exam will be comprehensive.* All exams carry equal weight and the three highest grades will be counted toward your final grade in the course (i.e. you can drop one exam). **There will be no make-up exams.**
- 2) **Article Summaries:** In addition to regular lectures, there will be three in-class discussions of recent research articles. A brief summary of the article will be due at the beginning of the class discussion. Further instructions on the article summaries will be given in class.
- 3) **Participation:** It is important that you attend class regularly and complete reading assignments in preparation for discussion and class activities. You will receive credit for participation through in-class activities and discussions (particularly journal article discussions).

Grading:

Exams	25% each (25 x 3 = 75%)
Article Summaries	5% each (5 x 3 = 15%)
Participation	10%
Letter Grades	A+ (95-100%), A (90-94%), A- (85-89%), B+ (80-84%), B (75- 79%), B- (70-74%), C+ (65-69%), C (60-64%), C- (55-59) D (50-54%), F (0-49%)

Technology:

Lectures will be in PowerPoint format. Blackboard 9.1 will be used to post announcements, additional readings and some lecture notes.

Special needs:

If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through that office.

Honor code:

Students are reminded of the university honor code and are expected to adhere to the principles thereof.

Important note: You are responsible for all announcements and any syllabus modifications made in class each week whether or not you are present.

Tentative schedule

Date	Chapter	Topic
August 30	-	Introduction
September 1	Chapter 1	Historical perspective
September 6	Chapter 2	Neurons and Glia
September 8	Chapter 3	Membrane potential
September 13	Chapter 4	Action potential
September 15	Chapter 5	Synaptic transmission 1
September 20	Chapter 5-6, readings	Synaptic transmission 2
September 22	Selected readings	Paper discussion/Review for Exam 1
September 27	Exam 1	
September 29	Chapter 7	Structure of the nervous system 1
October 4	Chapter 7	Structure of the nervous system 2
October 6	Chapter 8	Chemical senses
October 11	NO CLASS	Columbus Day
October 13	Chapter 9	The Eye
October 18	Chapter 9-10	Retinal processing
October 20	Chapter 10	Visuocortical processing 1
October 25	Selected readings	Paper discussion/Review for Exam 2
October 27	Exam 2	
November 1	Chapter 10	Visuocortical processing 2
November 3	Chapter 21	Attention and Consciousness 1
November 8	Chapter 21, readings	Attention and Consciousness 2
November 10	Chapter 11	Audition
November 15	NO CLASS	SfN meeting
November 17	Chapter 12	Somatic sensory system 1
November 22	Chapter 12	Somatic sensory system 2
November 24	NO CLASS	Thanksgiving
November 29	Selected readings	Mirror Neuron System
December 1	Selected readings	Paper discussion/Review for Exam 3
December 6	Exam 3	
December 8		Final Exam Review
December 15	Exam 4 - cumulative	1:30 - 4:15