

## Syllabus for Psyc 375 (001) – Spring 2012

**Instructor:** Dr Craig McDonald  
**Class time:** TR 3:00-4:15 pm  
**Class location:** Art & Design L008  
**Office hours:** W 3:00-4:00 pm & by appt.

**E-mail address:** cmcdona3@gmu.edu  
(email is the best way to reach me)  
**Office phone #:** 703-993-2277  
**Office location:** DK 2018

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

**Deadlines:** Last day to add – January 31; Last day to drop – February 24

### Goals and course description:

- 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:

There will be four exams. Each will include multiple choice and/or short essay questions based on the lecture material. 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.**

### Grading:

Exams 33.33% each (33.33 x 3 = 100%)  
Letter Grades A (85-100%), A- (80-84%), B+ (75-79%), B (70-74%), B- (65-69%), C+ (60-64%), C (55-59%), D (50-54%), F (below 50%)

### Technology:

Lectures will be in PowerPoint format and will be posted on Blackboard.

### 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.

### Tentative Schedule

Date	Reading	Topic
Jan 24	-	Introduction
Jan 26	Chapter 1	Historical perspective
Jan 31	Chapter 2	Neurons and Glia
Feb 2	Chapter 3	Membrane potential
Feb 7	Chapter 4	Action potential

Feb 14	Chapter 5	Synaptic transmission 1
Feb 16	Chapter 5-6, readings	Synaptic transmission 2
Feb 21	Exam 1	
Feb 23	Chapter 7	Structure of the nervous system 1
Feb 28	Chapter 7	Structure of the nervous system 2
Mar 1	Chapter 8	Chemical senses
Mar 6	Chapter 9	The Eye
Mar 8	Chapter 9	Retinal processing 1
Mar 13	No class	Spring break
Mar 15	No class	Spring break
Mar 20	Chapter 9	Retinal processing 2
Mar 22	Chapter 10	Visuocortical processing
Mar 27	Chapter 21	Attention and Consciousness 1
Mar 29	Exam 2	
Apr 3	No class	CNS meeting
Apr 5	Chapter 21, selected readings	Attention and Consciousness 2
Apr 9	Chapter 11	Audition
Apr 12	Chapter 11	Audition
Apr 17	Chapter 12	Somatosensory system 1
Apr 19	Chapter 12, selected readings	Somatosensory system 2
Apr 24	Selected readings	Cortical Plasticity
Apr 26	Exam 3	
May 1	Selected readings	Case study
May 3	Review for final exam	
May 15	<i>FINAL EXAM 1:30-4:15 pm</i>	

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