

# Laboratory in Behavioral Neuroscience – Spring 2008

## Biology / Psychology 3142.002

Life Sciences Building: Room 428  
Thursday: 5:30 – 8:20

**Instructor:** Colleen Thompson  
**Office:** 505, Life Sciences Building  
**Office Hours:** Wednesday, 3:00 – 4:00 p.m., or by appointment.  
I will also be available for a short time after class

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**Email:** [cthompson@uta.edu](mailto:cthompson@uta.edu)

**Weblinks:** Department [www.uta.edu/psychology](http://www.uta.edu/psychology) [www.uta.edu/biology](http://www.uta.edu/biology)  
Class <http://www.uta.edu/webct/>

**Course Description:** Research methodologies employed in the study of the biological bases of behavior. 1 hour credit. Credit will be granted only once.

**Course Learning Goals and Objectives:** Upon completion of the course students will understand and be able to describe the underlying principles of behavioral neuroscience research, methods used by neuroscientists to assess said principles, and the application of neuroscience experiments to every day life.

Additionally, students will be able to recognize and suggest corrections for flaws in experimental designs and methodologies, be able to design their own research experiment and demonstrate such knowledge through a research proposal and presentation. Emphasis will be placed on critical thinking, writing, professionalism, and oral competency.

**Requirements:** Must have completed or be concurrently enrolled in PSYC 3322 or BIOL 3322 (Introduction to Behavioral Neuroscience).

PSYC 3142 Prerequisite: PSYC 2442 or PSCY 2444.

BIOL 3142 Prerequisite: consent of department.

**Required Textbooks and Course Materials:** Readings will be placed on WebCt.

**Attendance Policy:** Attendance is not mandatory, however it is *highly recommended*. Portions of the quizzes will come directly from class lecture.

## Specific Course Requirements with Descriptions

**Quizzes:** There will be 5 quizzes dispersed throughout the semester (see schedule for tentative dates). Quizzes will be over material presented in lab and in the assigned readings/assignments. **Students arriving after 5:30 will not be allowed to take the quiz after the first quiz has been turned in.** Questions will be a combination of short answer, multiple choice, matching, fill in the blank, and true false. The quizzes are designed to examine the student's comprehension of the material presented in class.

**Assignments:** There are several required writing and thought assignments due throughout the semester (see schedule for tentative dates). Assignments are to be done individually and are due at the beginning of class. Assignments are designed to develop writing skills and examine comprehension of methodologies employed in behavioral neuroscience. The assignments will aid in writing the research proposal.

**Proposal:** Students will write a research proposal on a subject related to behavioral neuroscience. Proposals will be the student's own individual idea and work. The research proposal is designed to assess writing skills, critical thinking, and comprehension of behavioral neuroscience.

**Presentation:** A professional presentation over the research proposal will be done in front of the class at the end of the semester. Presentations are designed to assess oral competency and prepare students for their professional careers.

**Missed Quizzes:** Makeup quiz requests will be approved only when a university approved excuse, complete with documentation, is given. (See catalog for University approved excuses) A note from a friend or family member is not acceptable documentation.

**Late Assignments:** All assignments (including the paper) are due **at the beginning of class**. A deduction of 10% will be taken off if turned in that day after 5:30. An additional 10% will be taken off per day that the assignment is not turned in. Late assignments will not be accepted after 1 week. E-mailed assignments will not be accepted unless I state otherwise.

**Plagiarism and Collusion:** As stated in the catalog and below: it is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. Therefore, the *first time* students are caught engaging in such acts they will receive **a zero for the assignment/quiz and be referred to judicial affairs**. The *second time* they engage in such acts they will receive **a zero for the course and again be referred to judicial affairs**.

**Grading Format, Weighting/Point Value of Assignments and Quizzes, Final Grade:** The final course grade will be assigned based on the final point total accumulated.

Assignment	Total Points
Research Proposal	150
Poster Presentation	90
Article Critiques (2)	45 Points Each
Ethics Thought Paper	20 Points
Quizzes (5)	30 Points Each*

\* 2 additional assignments (the plagiarism tutorial and the proposal idea) will count towards credit on the following quiz

Letter Grade	Points Required
A	450-500
B	400-449
C	350-399
D	300-349
F	299 and below

### **Americans With Disabilities Act**

The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112 -- The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans With Disabilities Act - (ADA), pursuant to section 504 of The Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide **"reasonable accommodation"** to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with **informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.**

### **Academic Dishonesty**

It is the philosophy of The University of Texas at Arlington that **academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form.** All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the

submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)

### **Final Review Week:**

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and **laboratory examinations**. In addition, no instructor shall give any portion of the final examination during Final Review Week. Classes are held as scheduled during this week and lectures and presentations may be given.

**Drop Policy:** A course drop grade will be assigned in accord with UT-Arlington policy (see current catalog). No grade is given if a student drops a course before 5:00 p.m. CST on the Census Date, January 30, 2008.

A student may drop a course with a grade of W until the two-thirds point of the semester. This period ends on March 28, 2008. A student may drop a course after this point only upon approval of the appropriate official.

### **Drop for Non-payment of Tuition**

If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar's Office. You may not continue to attend class until your Enrollment Loan has been applied to outstanding tuition fees.

### **E-Culture Policy**

The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular, important information concerning registration, financial aid, payment of bills, and graduation may be sent to students through email.

All students are assigned an email account and information about activating and using it is available at [www.uta.edu/email](http://www.uta.edu/email). New students (first semester at UTA) are able to activate their email account 24 hours after registering for courses. There is no additional charge to students for using this account, and it remains active as long as a student is enrolled at UT-Arlington. Students are responsible for checking their email regularly.

**Student Support Services Available:**

The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

## Course Schedule:

Topics are tentative – the topics and/or order of topics may change during the semester.

<u>Date:</u>	<u>Topic:</u>
January 17 <sup>th</sup>	Course Introduction Literature Review/ Plagiarism Ethics & Guidelines of Animal Use in Research
January 24 <sup>th</sup>	Plagiarism Quiz Due Ethics Thought Paper Due Laboratory Training Module Experimental Design Paper Critique 1 Assigned
January 31 <sup>st</sup>	Paper Critique 1 Due Behavioral Methodology Laboratory: Demonstration of Methods
February 7 <sup>th</sup>	Quiz 1 Action Potentials, Intro to Synaptic Transmission Electrophysiology
February 14 <sup>th</sup>	The Brain... Major Functions and Malfunctions Laboratory: Sheep Brain Dissection
February 21 <sup>st</sup>	Quiz 2 Surgical Manipulations of the Brain Laboratory: Stereotaxic Surgery Paper Critique 2 Assigned
February 28 <sup>th</sup>	Paper Critique 2 Due Self-Stimulation Laboratory: Self-stimulation Demonstration
March 6 <sup>th</sup>	Quiz 3 Diseases and Disorders; How they are Modeled
March 13 <sup>th</sup>	Proposal Idea Due Neuropharmacology Laboratory: Pharmacology Demonstration

March 20 <sup>th</sup>	Spring Break
March 27 <sup>th</sup>	Quiz 4 Rough Draft Due (Optional) Histological Procedures
April 3 <sup>rd</sup>	Laboratory: In-Class Experiment
April 10 <sup>th</sup>	Proposal Due Neuroscience Application Jobs in Neuroscience
April 17 <sup>th</sup>	Quiz 5 Discussion of Proposals and Presentations
April 24 <sup>t</sup>	Presentations
May 1 <sup>st</sup>	Presentations