

**Course: PSY 332, BEHAVIORAL NEUROSCIENCE  
(Spring 2010, 43860)**

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**Place & Time:** PHR 2.110; T TH 3:30-5:00

**Textbook/Resources:** Neuroscience - Exploring the Brain, 3rd Edition  
Mark F. Bear, Ph.D., Barry W. Connors, Ph.D., Michael A.  
Paradiso, Ph.D. ISBN: 0-781-76003-8

Interactive CD-ROM- packaged with every copy of the book  
and on the Student Resource Center of the book website:  
<http://connection.lww.com/products/bear/src.asp>

**Evaluation:** Sixty percent of the total grade will come from two  
partial exams. Three partial exams will be given and the  
lowest grade will be deleted. If you miss an exam, that exam  
will be the exam deleted; no make-ups will be given. A  
comprehensive final exam will account for the other 40% of  
the total grade. No make-up will be given for the final.

Exams will consist of multiple-choice questions. Half of  
the questions will come from material presented in lectures,  
and half will come from the chapters assigned in the textbook.  
You will be responsible for lecture material even if it is not in  
the text, and you will be responsible for assigned chapters  
even if they are not discussed in the lectures.

No communication will be allowed during the exams. All  
institutional rules on Student Services and Activities (UT  
publication No. 9009) will be enforced, in particular, the rules  
on Scholastic Dishonesty (Appendix C). Failure to follow these  
rules, as determined by the professor, will be sufficient cause  
to assign an F grade.

The University of Texas at Austin provides upon request  
appropriate academic accommodations for qualified students  
with disabilities. For more information, contact the Office of the  
Dean of Students at 471-6259, 471-4641 TTY.

**PSY 332, BEHAVIORAL NEUROSCIENCE  
SCHEDULE, SPRING 2010**

| <u>TOPIC</u>  | <u>DATE</u>                             | <u>DESCRIPTION</u>   | <u>CHAPTER</u>    |
|---|---|--|-------------------|
| <b><u>PART I: Fundamentals of Neuroscience</u></b>                      |   |  |                   |
| 1   | Jan. 19, 21                             | Introduction to behavioral neuroscience concepts and methods | 1                 |
| 2   | Jan. 26, 28, Feb. 2                     | Basic structure of the human nervous system                  | 7                 |
| 3   | Feb 4, 9                                | Cells of the nervous system and neural networks              | 2, 23             |
|   | <b>Feb. 11</b>                          | <b>FIRST EXAM (30%)</b>                                      | <b>Topics 1-3</b> |
| <b><u>PART II: Sensory Systems and Perception</u></b>                   |   |  |                   |
| 4   | Feb. 16, 18                             | Visual system and perception                                 | 9, 10             |
| 5   | Feb. 23, 25; March 2                    | Auditory system and audiovocal communication                 | 11, 20            |
| 6   | March 4, 9                              | Somatosensory systems and pain                               | 12                |
|   | <b>March 11</b>                         | <b>SECOND EXAM (30%)</b>                                     | <b>Topics 4-6</b> |
| <b><u>PART III: Sensorimotor Integration and Behavioral Control</u></b> |   |  |                   |
| 7   | March 23, 25                            | Reflex and voluntary movements                               | 13, 14            |
| 8   | March 30; April 1                       | Arousal and activity-sleep cycles                            | 19, 21            |
| 9   | April 6, 8                              | Hormones and sexual behavior                                 | 15, 17            |
|   | <b>April 13</b>                         | <b>THIRD EXAM (30%)</b>                                      | <b>Topics 7-9</b> |
| <b><u>PART IV: Adaptive Behavior and Brain Disorders</u></b>            |   |  |                   |
| 10  | April 15, 20                            | Thirst, hunger and reinforcement                             | 16, 18            |
| 11  | April 22, 27                            | Learning and memory  | 24, 25            |
| 12  | April 29; May 4, 6                      | Brain disorders  | 22                |
|   | <b>Tuesday, May 18, 9:00–12:00 noon</b> | <b>FINAL EXAM (40%)</b>                                      | <b>All Topics</b> |

### **What advice would you give to a Behavioral Neuroscience student?**

Behavioral Neuroscience students need to understand that this class really differs from most other classes in the Psychology department. It is similar to Biopsychology in content but it goes in more depth. Students at this upper-level class have to assume more responsibility for their own learning. That means paying attention to course syllabi, reading class policy statements carefully, attending class faithfully and keeping up with reading assignments even when instructors do not remind students to do the work.

Serious students will quickly discover this class is not necessarily harder than the best courses they have taken at The University of Texas, but there is likely a faster pace and less room for slippage. A student who gets off to a good start will face a more enjoyable learning experience in this class, both academically and intellectually. A student who falls behind early will spend many days playing catch up and will never feel entirely at home in this class.

### **How can students academically succeed in an upper-level course such as Behavioral Neuroscience?**

First, check out the advice offered by former students enrolled in these classes:

“Get started on course readings early; choose interesting questions to ask during class; manage your time well.” I would add the suggestion that students form small study groups and review the material on the interactive CD-ROM packaged with every copy of the book (this can also be accessed on the book Web site). Also review the course images posted in my Web site:

<http://homepage.psy.utexas.edu/homepage/group/gonzalezlimalab/psy332.htm>.

Finally, I would advise any students to get to know their professor and TA. The professor has over twenty years of experience teaching Neuroscience to students at various levels (undergraduate, medical, graduate, and postdoctoral students); and the TA is a fifth-year Ph.D. student in Neuroscience. Take advantage of office hours to ask pertinent questions about course material or reading assignments.

### **How can students maximize their Behavioral Neuroscience experience?**

A school the size of The University of Texas at Austin offers endless opportunities for learning and growing. Seek out and welcome those opportunities. Attend lectures and presentations related to Behavioral Neuroscience. For example, NEU 394P - Current Topics in Behavioral Neuroscience, which runs Wednesdays, 3-5 PM, is made of seminars by UT and invited speakers talking about their current research topics in the behavioral neuroscience area. Some seminars overlap with the Institute for Neuroscience seminar series. A list of seminar topics and speakers is not available until the start of each semester. I will advertise the topic each week to all interested. You are welcome to join us. Browse the Web to learn about what other students and scientists are doing in Behavioral Neuroscience, and join research labs and organizations that will stretch your talents and help you explore your interests.

### **The Psychology Department will drop all students who do not meet the following prerequisites:**

- (a) PSY 301 with a C or better
- (b) PSY 418 (or an equivalent listed in the course schedule) with a C or better
- (c) Upper-Division standing (60 hours completed)