

PSYC 376-001 Brain and Behavior II  
Science Technology I 120  
TR 10:30 am -11:45 am

Instructor: Dr Abeba Fekade  
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**Course Text:** Bear, M.F. (2007). *Neuroscience: Exploring the Brain*. Lippincott Williams & Wilkins, Philadelphia, PA

### **COURSE DESCRIPTION AND OBJECTIVE**

In this course, you will be introduced to the structure and function of the brain and its complex role in controlling both basic and higher functioning of human behaviors and how behaviors and other factor affect the functioning of the brain. Since this is the 2nd semester of a two part course, we will focus on specific and selected behaviors and behavioral disorders that are critically related to the function of the nervous system in general and the brain specifically. We will also address specific behavioral disorders, including stress/anxiety responses, sexual behavior, sleep, learning and memory, Alzheimer 's disease, emotion, mood disorders, schizophrenia, and drug addiction. We will explore the current topics and research findings as we explore the notion of the changing brain.

**Technology:** Blackboard will be used in this course on a regular basis. Important information such as class slides, study guides, and the turn in of assignments will be conducted through blackboard. Students are expected to know how to use Blackboard, please ask if you need assistance using this technology. In addition, information may be sent to the class through GMU E-mail. Please keep your inbox clear, as you are responsible for any information sent to you through e-mail.

**Class attendance:** I expect you to come to as many classes as possible, and to be ready to listen, take notes and ask questions. Class participation is not only encouraged but also expected. Please remember that students who attend class and participate actively do much better on exams than students who do not participate and miss class.

**Exams:** There will be four exams given during the semester, three non-cumulative exams and one cumulative final exam. The three highest exam grades will be used to calculate the student's final grade. It is your responsibility to make sure you take at least three of the four exams. Under emergency situation exam can only be made up if you receive my permission before the day of the exam with a valid excuse (note from a doctor, judge, sergeant, etc.).

**Article Summary:** Student will write an article summary. The article must be from related areas in cognition and must be from a peer review Journals. Further instructions on the article

summary will be given in class and will be posted on blackboard. This assignment will count 20% of your total grade and the lecture exam will count 80%.

**Grading Criteria: 400 total points**

A+ = 97-100%    B+ = 87-89%    C+ = 77-79%    D = 60-69%  
 A = 93-96%    B = 83-86%    C = 73-76%    F = <60%  
 A- = 90-92%    B- = 80-82%    C- = 70-72%

**HONOR CODE:** Working in a group to discuss course material is encouraged, but all assignments submitted for the lab (unless otherwise specified) should represent your own work. All homework assignments are to be completed individually. Any Honor Code violation will result in a zero for that assignment. All provisions of the GMU Honor Code will be followed in this class, and are further detailed in the university catalog.

**DISABILITY HELP:** 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.

Drop Deadline for course: Feb 1- Feb 24

Note: The schedule below is tentative, changes may occasionally be necessary. In the event that an exam date is changed, you will be notified at least one week in advance.

| <b>Date</b>                | <b>Chapter</b>                                  | <b>Topic</b>  |
|----------------------------|---|---|
| <b>1/24</b><br><b>1/26</b> | Chapter 15                                      | Review Syllabus & Introduction<br>Overview of brain and behavior          |
| <b>1/31</b><br><b>2/2</b>  | Chapter 15                                      | The autonomic nervous system<br>Sympathetic and parasympathetic divisions |
| <b>2/7</b><br><b>2/9</b>   | Chapter 16<br>Chapter 16                        | motivation  |
| <b>2/14</b><br><b>2/16</b> | Chapter 17<br>Chapter 17                        | Sex and the brain   |
| <b>2/21</b><br><b>2/23</b> | Exam 1 Review<br><b>Exam 1 (Ch. 15,16, 17,)</b> | Exam 1 Review<br><b>Exam 1</b>  |
| <b>2/25</b><br><b>2/28</b> | Chapter 18<br>Chapter 18                        | Brain mechanisms of emotion   |
| <b>3/1</b><br><b>3/6</b>   | Chapter 19<br>Chapter 19                        | Brain rhythms and sleep   |
| <b>3/8</b><br><b>3/13</b>  | Chapter 20<br>Spring break                      | language  |
| <b>3/15</b><br><b>3/20</b> | Spring break<br>Chapter 21                      | Language  |

|              |  |   |
|--------------|--|---|
| 3/22<br>3/27 | Review Chapter (Ch. 18, 19, 20)<br><br><b>Exam 2</b>   | Review for <b>Exam 2</b>  |
| 3/29<br>4/3  | Chapter 21<br>Chapter 21                               | Attention<br>Physiological effects of attention                           |
| 4/5<br>4/10  | Chapter 22<br>Chapter 22                               | Mental illness<br>Biological approach to mental illness                   |
| 4/12<br>4/17 | (Ch. 20 21 22 ) <i>Exam 3</i><br><br><i>Chapter 23</i> | <i>Exam 3</i><br><br><i>The changing brain</i><br><i>Wiring the brain</i> |
| 4/19<br>4/24 | <i>Chapter 23</i><br><br><b>Article Summary due</b>    | <i>The changing brain</i><br><i>Cell death</i>                            |
| 4/26<br>5/1  | <i>Chapter 24</i><br><i>Chapter 25</i>                 | Memory system<br>Molecular mechanisms of learning and memory              |
| 5/3<br>5/8   | <i>Review (Ch.23,24 25)</i><br><br><b>Exam 4</b>       | <i>Review</i><br><i>Exam 4</i>  |
| 5/10<br>5/15 | <b>Review for final exam</b><br>Final Exam             | Final Exam  |
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Syllabus is subject to change by instructor. Student will be notified in advance of any changes made to the class syllabus.

The instructor reserves the right to enter a failing grade for any student found guilty of an honor code violation.

