Neuro I
(PSY 6342-010/D10)

Fall 2018  T 3:30—6:20 pm  A 119

Instructor:  Steven T. Brewer, Ph.D.  Office:  A 104D

Email: steven.brewer@angelo.edu  Phone: (325) 486-6124

Office Hours: M & W:  1:00 – 3:00
T:  2:15 – 3:15
R:  10:00 – 1:00
F:  10:00 – 12:00 (virtual);
Or by appointment


Course Description: The field of psychology evolved from the combination of philosophy and physiology. The first textbook in psychology, written by Wundt in the late 19th c. was entitled "Principles of Physiological Psychology". Physiological psychology involves studying the relationship between physiological mechanisms and behavior. The primary physiological mechanism is the nervous system. Anyone who has kept current with psychological research realizes that the future of psychology will revolve around neural substrates of behavior and how they are influenced by our genetic makeup and modified by the environment. The purpose of this course is to give the student an in-depth look at the principles of neuroscience and how they relate to cognition and behavior. Emphasis will be placed on the organization of the nervous system and the cellular/chemical bases of neural activity and their relationship to normal and abnormal behavior.

Course Objectives:
1. Learn fundamental principles, generalizations, or theories
2. Develop specific skills and competency needed to understand biological research in the neurosciences.
**Student Learning Outcomes:**
By the end of this course, you should:
1. Have a basic understanding of the structure and function of the nervous system.
2. Have a preliminary understanding of neuronal communication.
3. Have a basic understanding of the biological processes underlying higher level functions such as cognition, learning and memory, language, and mental disorders.

**Course Policies, Procedures and Format**

**Readings**
This course is a hybrid in which some students will be entirely online and some students will exclusively attend lectures. While the material covered is identical in both environments there will be different needs for success in this course. For the on-campus students it is expected that each student will have the required reading completed before the class during which we will discuss the material (see course schedule). Online students will need to spend more time making sure the reading is understood. It is common to find some of text material to be challenging upon first read, but lectures and discussions will be easier and more advantageous if you have read the assigned reading. It is also very helpful to read through the material and get a sense for what the text is trying to say rather than trying to develop a perfect understanding during a first readthrough. It will be important for on-line students to read the material more than once.

**Policies/Expectations**
1. Students are expected to take responsibility for their success in this course. You are encouraged to be active participants in the education process by asking questions and being alert in class and actively engaging the material in both formats.

2. If you have any concerns related to this class, you are encouraged to speak with your instructor in a timely manner. As a general rule, you should raise any issues within one week of receiving a grade or completing a given project.

3. Students will be expected to access the Blackboard online classroom on a regular basis for announcements, course materials, assignments, and grades.

4. The instructor reserves the right to use plagiarism prevention software.

**Class Sessions**
1. The majority of the class will be lecture for the in-person students and reading available materials for the on-line students. I will endeavor to post the lectures for the online students but I cannot guarantee the lectures will be posted. This is the first time a course of this type has attempted to provide content to in-person and on-line
students simultaneously, there will be technical challenges so please try to be patient and understanding.

2. Class attendance/engagement is **mandatory**. This is a graduate level class and as such you are expected to attend each class and contribute to class discussions and activities for the in-person students and for the online students to not put reading/engaging the material off until the last minute. In order to have meaningful class discussions it is **expected** that you will come to class having read the assigned materials.

3. You MUST take your own notes in class in order to pass.

4. Media presentations and demonstrations may be used to help illustrate the concepts being discussed.

5. Classes may include discussions, group projects, films, and activities.

6. Questions and comments are always welcome!

**DISCLAIMER:** This class may examine ideas and material that some students may find disagreeable. If students are unable or unwilling to tolerate other perspectives in light of their own value systems and in the context of the class, then they are encouraged to speak with the instructor regarding their concerns and may wish to reconsider their enrollment in the course. Should you have any questions, concerns, or suggestions at any time during the semester, please feel free to contact me.

**Communication**

1. Email is the best way to contact your instructor.
2. All emails should include “PSY 6342” in the subject line.
3. All emails should include your first and last name.
4. Emails will typically be answered within 24 hours (excluding weekends and holidays), if an email is not answered within 24 hours please verify the email address and speak with your instructor during office hours or the next class period.

**ACADEMIC INTEGRITY:** Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is available on the web at http://www.angelo.edu/forms/pdf/honorcode5.pdf. Any violation of academic honesty may result in course failure.

**Tutoring:**

The ASU Tutor Center is located in the Library C301 (3rd floor). Tutoring is free to all ASU students.

**Disabilities:**
Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center (325-942-2191), in order to request such accommodations prior to any accommodations being implemented. You are encouraged to make this request early in the semester so that appropriate arrangements can be made.

**METHOD OF ASSESSING LEARNING OUTCOMES:**

**Exams:** Principles of learning and cognition have indicated that the acquisition and use of knowledge is facilitated to the degree that material is presented in a "distributed" rather than "massed" manner. Thus, you will be evaluated (tested) four times this semester after each of four units according to the schedule detailed below. Exams will most likely consist of a combination of 50 multiple choice and short answer/essay type questions. Exam material will come from class material as well as the book. Note that the 4th or final exam will not be comprehensive. Each exam will be worth 100 points for a total of 400 points. While on-line students will have the benefit of not being physically present for exams it is expected that notes and textbook will NOT be used to aid in the taking of the exam and considered cheating. Any indication of cheating on the exam will result in the recording of a zero for the exam and possible reporting of honor code violation.

**Make up policy for exams:** Make up exams will **ONLY** be allowed for emergency situations (in other words, a doctor's appointment is not an emergency). It is the student’s responsibility (BY EMAIL WHEN POSSIBLE) to contact the professor within 24 hours to reschedule. Failure to do so will result in a zero on the exam. Make up exams will be scheduled at the convenience of the instructor and will be scheduled as quickly as possible.

**Lead Discussion/Summary:** Each in-person student will be required to find, read and present a peer reviewed biologically based scholarly article. The article may be on any topic related to this course and is of interest to the student. You will have 30 minutes to present your article and will be worth 50 points. Each on-line student will be required to find and summarize (500 to 750 words) a peer reviewed biologically based scholarly article. The article may be on any topic related to this course and is of interest to the student. Every student will submit for approval the article chosen to present/summarize by the exam 2 (10-23).

**Course Point Distribution:**

**Final Grades:**
Exams (4): 400 pts. (100 pts. Each) A: 90-100%
Lead Discussion/summary (50 pts) B: 80-89%
Total Possible Points: 450 C: 70-79%

D: 60-69%
F: <60%

Tentative Schedule*

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Chapter</th>
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<tbody>
<tr>
<td>8-28</td>
<td>Syllabus/Introduction</td>
<td></td>
</tr>
<tr>
<td>9-4</td>
<td>The Brain and Behavior, Nerve Cells, Circuitry and Behavior</td>
<td>1 &amp; 2</td>
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<tr>
<td>9-11</td>
<td>The Cells of the Nervous System; The Organization of the Central Nervous System</td>
<td>4 &amp; 15</td>
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<tr>
<td>9-18</td>
<td>Exam 1</td>
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<tr>
<td>9-25</td>
<td>Ion Channels; Overview of Synaptic Transmission; Propagated Signaling: The Action Potential</td>
<td>5, 8 &amp; 7</td>
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<td>10-2</td>
<td>Transmitter Release; Neurotransmitters</td>
<td>12 &amp; 13</td>
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<td>10-9</td>
<td>The Functional Organization of Perception and Movement; From Nerve Cells to Cognition</td>
<td>16 &amp; 17</td>
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<tr>
<td>10-16</td>
<td>The Organization of Cognition; Functional Imaging of Cognition</td>
<td>18 &amp; 20</td>
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<tr>
<td>10-23</td>
<td>Exam 2</td>
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<tr>
<td>10-30</td>
<td>Perception: Touch &amp; Pain</td>
<td>23 &amp; 24</td>
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<td>11-6</td>
<td>Movement: Organization and Planning; Spinal Reflexes; Locomotion</td>
<td>33, 35 &amp; 36</td>
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<td>11-13</td>
<td>Unconscious and Conscious Processing</td>
<td>45 &amp; 49</td>
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<td>11-20</td>
<td>Language, Thought, Affect &amp; Learning</td>
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<tr>
<td>11-27</td>
<td>Language, Thought, Affect &amp; Learning; Lead Discussions</td>
<td>62 &amp; 65</td>
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<tr>
<td>12-4</td>
<td>Lead Discussions</td>
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<tr>
<td>12-13</td>
<td>Final 3:30-5:30</td>
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* Syllabus is subject to change at the discretion of the instructor*