Instructor: Cheryl Chancellor-Freeland, Ph.D.

Office Location: DMH 317

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Email: Cheryl.Chancellor-Freeland@sjsu.edu

Office Hours: Tue./Thurs. 9:30 – 10:30 AM (and by appointment)

Class Days/Time: Tue./Thurs. 1:30pm – 2:45pm

Classroom: Sweeney Hall 100

Prerequisites: Bio 021 or Bio 065.

Description: Biopsychologists try to understand the biological basis for behavior and mental processes. They try to determine why people do what they do, and in some cases, help them change what they are doing. This discipline involves examining many aspects of human functioning—overt actions, mental processes, and emotional and physiological responses. Biopsychologists deal with the smallest of units, such as a single molecule or individual nerve cell. They also deal with large brain regions and interconnections between nervous, endocrine and immune systems. In this course, we will be covering a variety of topics, and the pace may be rather fast at times. Therefore, it is advised that you come to class!

Course Goals and Learning Outcomes: The goal of this course is to facilitate a basic understanding of neural mechanisms underlying behavior. By the end of the course, you should be able to describe activities of nerve cells as well as that of specific brain structures. You should also be able to describe and discuss complexities associated with specific sensory and motivational systems. A broad understanding of the biological basis of psychopathology is also an outcome of this course.
Finally, it is my goal that you gain a greater understanding of yourself and others, and that you become fascinated with biopsychology, even if you think you hate biology!

**Learning Outcomes**
More specific course outcomes have been outlined in the *Summary of Events* following each quiz and exam (see below). Course and program learning objectives are as follows.

**Course Learning Outcomes (CLOs)**
Upon successful completion of this course, Psych 30 students will be able to:

**CLO1** – *Students will be able to* – identify, describe, and communicate the major concepts related to basic neuroanatomy, neurophysiology and psychopharmacology. Assessment for this will be in quiz 1, midterm I and in an in-class activity.

**CLO2** – *Students will be able to* – describe, and communicate the major transduction mechanisms, neuroanatomical pathways and theoretical perspectives associated with vision and nonvisual sensory systems, motivational systems and learning processes. Assessment for this CLO will be conducted in quizzes 2 and 3, and midterms I and II.

**CLO3** – *Students will be able to* – identify, describe, and communicate experimental approaches and associated empirical findings for various methodological approaches in biopsychology. Assessment for this CLO will be conducted primarily in Midterm I, but also in quizzes 1 - 3, and midterm II.

**CLO4** – *Students will be able to* – think critically and creatively about biopsychological approaches to address issues related to behavioral and mental health processes. This CLO will be assessed in essay-type questions on midterm II and the final exam.

**CLO5** – *Students will be able to* – apply biopsychological principles to individual, interpersonal and group behavioral and mental health issues. This will be assessed on the final exam.

**Program Learning Outcomes (PLO)**
*Upon successful completion of the psychology major requirements…*

**PLO1** – Knowledge Base of Psychology – *Students will be able to* identify, describe, and communicate the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
PLO2 – Research Methods in Psychology – Students will be able to design, implement, and communicate basic research methods in psychology, including research design, data analysis, and interpretations.

PLO3 – Critical Thinking Skills in Psychology – Students will be able to use critical and creative thinking, skeptical inquiry, and a scientific approach to address issues related to behavior and mental processes.

PLO4 – Application of Psychology – Students will be able to apply psychological principles to individual, interpersonal, group, and societal issues.

PLO5 – Values in Psychology – Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

Text:


Requirements: The requirements for this class include four quizzes and four examinations (three midterms and a final). Each quiz is worth about 9% of your grade, and the midterm examinations each count 15% toward the final grade. The final exam will be worth 19%. It is strongly recommended that students take every advantage to earn bonus points. They will be offered throughout the semester.

The format for quizzes and midterms is objective (multiple choice, true/false, identify, match) and short answer. Quizzes are to be completed at home, which means that you will be on your honor when you take them. You may use your text, or other written sources, but you may NOT consult with other persons. Quizzes and other course materials will be available Canvas Leaning Management System course login website at http://sJSU.instructure.com. If short answers are required, any hard-copy, short answers are to be submitted in class. Midterm exams are scheduled on Thursdays. The final exam date is scheduled for Thursday 12/13 @12:15 in our regular classroom, Sweeney Hall 100.

Extra Credit Points: a maximum of 8 extra credit points may be earned by attending research presentations and for completion of activities listed on the “Bonus Point” handout posted under “Module 1” on CANVAS. To receive credit, you must write a brief summary (1 page maximum) of the each presentation, except noted elsewhere (Due 12/6). All summaries are to be typed (double-
Grading: Due to the fast-paced nature of this course, there will be no early, late, or make-up exams or quizzes. Please check your schedule to ensure that you have no conflicts with the test dates. However, if you have a written medical excuse for missing an exam, a makeup exam will be given within a week of the missed exam, or at the discretion of the instructor. Please note, it is the student’s responsibility to make arrangements for any needed make-up assignments.

Classroom Protocol
To succeed in this course, attendance is critical. You should come prepared for class discussions with a completion of course readings. Students are responsible for keeping current on changes that may occur on the tentative schedule of events in the syllabus. Students are expected to maintain a level of professional and courteous behavior at all times.

Cell phones and other electronic devices
You are to turn off cell phones and other electronic devices before the beginning of class. Laptops are permitted for note-taking purposes only. If you use your laptop to take notes you should sit at the front of the class (in the first two rows). Laptop use for purposes other than taking notes for 30 will not be permitted. Students not abiding by this policy will be asked to leave the class and will not be permitted to use their laptop for the remaining semester.

Communication with instructor
Use email, office hours, or class time. I will respond to emails M-F 9:00 – 5:00. Please allow 1-2 business days for a response. When sending an email to the instructor, please be certain to be specific about the topic so you message isn’t lost. For example, the subject line should include the course (“Psych 30”) and brief topic (e.g., “Appointment”). Be aware that email is not the best way to get extensive help with course content or with quizzes. Please come to my office hours for these other issues that require more discussion. Also note that lecture notes will not be emailed to students. When lecture is missed, it is your responsibility to get the notes from a classmate.

Consent for Recording of Class and Public Sharing of Instructor Material
University Policy s12-7, http://www.sjsu.edu senate/docs/S12-7.pdf, requires students to obtain instructor’s permission to record the course.

- “Common courtesy and professional behavior dictates that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. This permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the
instructor; you have not been given any rights to reproduce or distribute
the material."

- “If you would like to record course lectures, please obtain permission from
your instructor in writing (via email is ok) or orally and indicate whether you
will record for the whole semester or on a class by class basis.”

- “Course material developed by the instructor is the intellectual property of
the instructor and cannot be shared publicly without his/her approval. You
may not publicly share or upload instructor-generated material for this
course such as exam questions, lecture notes, or homework solutions
without instructor consent”.

**Faculty Web Page and MYSJSU Messaging:** Copies of the course materials
such as the syllabus, major assignment handouts, etc. may be found Canvas
Leaning Management System course login website at
http://sjsu.instructure.com. You are responsible for regularly checking with the
messaging system through MySJSU at http://my.sjsu.edu (or other
communication system as indicated by the instructor) to learn of any updates.

**Dropping and Adding:** Students are responsible for understanding the policies
and procedures about add/drop, grade forgiveness, etc. Refer to the current
semester’s Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found
on the current academic calendar web page located at
http://www.sjsu.edu/academic_programs/calendars/academic_calendar/. The
Late Drop Policy is available at
http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of
the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at
http://www.sjsu.edu/advising/. Procedures about add/drops, academic renewal,
fee payment, withdrawal and so forth are listed under:
http://info.sjsu.edu/home/schedules.html

**University Policies**
Per University Policy S16-9, university-wide policy information relevant to all
courses, such as academic integrity, accommodations, etc. will be available on
Office of Graduate and Undergraduate Programs’ Syllabus Information web page
at http://www.sjsu.edu/gup/syllabusinfo/.

**Student Technology Resources:**
Computer labs for student use are available in the Academic Success Center
located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union.
Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors.

Learning Assistance Resource Center: The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. The [LARC website](http://www.sjsu.edu/larc/) is located at http://www.sjsu.edu/larc/.

The following provides a quick summary of important course events. I have also included a brief description of the learning outcomes for each section. You may find this, along with the study guides, useful when preparing for exams. A detailed schedule of events is also provided, but this may be modified as instructor deems necessary. You are responsible for noting any changes that may occur during the semester.

**Summary of Events**

**Quiz 1**
Date: Thursday August 30th (Due September 4th)
Lectures: August 21 – August 30
Outcomes: Describe the mind/body issue and key historical events. Demonstrate a clear understanding of structure and function of the CNS. Understand invasive and noninvasive methods for investigating brain function.

**Midterm I**
Date: Thursday, September 13th
Lectures: August 21 – September 11
Chapters: Chapters 1-3 (select pages from chapter 4)
Outcomes: Know the key historical points. Demonstrate a complete understanding of the functioning of the neuron: electrophysiological and chemical properties; interneuronal communication; basic principles of drug effects on neurons.
Be able to identify major structures and function of the brain. Understand some general methods for investigating brain and behavior.

**Quiz 2**
- **Date:** Thursday September 27\(^{th}\) (Due Tuesday October 2\(^{nd}\))
- **Lectures:** September 18 – September 27
- **Outcomes:** Describe drug categories and how they impact neurotransmitters. Demonstrate an understanding of how the CNS develops. Be able to identify components of the visual system, and describe how vision occurs.

**Midterm II**
- **Date:** Thursday, October 11\(^{th}\)
- **Lectures:** September 18 – October 9
- **Chapters:** Chapters 4 (select pp.), 5 - 7
- **Outcomes:** Complete understanding of psychopharmacology and a basic understanding of vision and select nonvisual sensation and perception (e.g., how the physical energy is translated into neural energy) Basic understanding of brain development and brain plasticity. Be able to identify components of the visual and nonvisual systems, and describe how the sensory systems provide for sensations.

**Quiz 3**
- **Date:** Thursday October 25\(^{th}\) (Due October 30\(^{th}\))
- **Lectures:** October 16 – 25
- **Outcomes:** Describe pain and explain why it is an enigma. Demonstrate a basic understanding of motivational systems. What makes you eat and sleep? What is a “set-point?”

**Midterm III**
- **Date:** Thursday, November 8\(^{th}\)
- **Lectures:** October 16 – November 6
- **Chapters:** Chapters 7, 9 (select pages), 11, 12
- **Outcomes:** An understanding of underlying mechanisms driving nociception and specific motivations. What is the set-point model? Describe sleep and its proposed purposes. Describe different types of learning and how memory is consolidated.
**Quiz 4**
Date: Thursday November 29\(^{th}\) (Due December 4\(^{th}\))
Lectures: November 13 – 29
Outcomes: An understanding of the biological basis and specific brain regions associated with stress, aggression and reward.

**Final Exam**
Date: Thursday December 13\(^{th}\), 12:15 - 2:30 PM.
Lectures: All
Chapters: All reading with particular focus on chapters 11, 12, 14 and 16.

*Please note: Quizzes will be take-home tests. This means you are on your honor when taking these quizzes. Your time is unlimited; however, you may not discuss the questions or responses with other individuals. Collaborative work will result in a zero for all. All quizzes are to be submitted in CANVAS; short answers are to be turned in to the instructor within the first 10 minutes of lecture.*

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### Performance Outcomes and Associated Points

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Approximate percent</th>
<th>Points</th>
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<tbody>
<tr>
<td>Quizzes (4)</td>
<td>36 (9% each)</td>
<td>108 total (27 each)</td>
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<tr>
<td>Midterms (3)</td>
<td>45 (15% each)</td>
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<tr>
<td>Final Exam</td>
<td>19%</td>
<td>57</td>
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**Total**

100% 300

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**Grading Scale (300 points)**

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<tr>
<th>Total Points</th>
<th>Percentage</th>
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<tr>
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<td>90 – 100</td>
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<td>209 – 238</td>
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<td>150 – 208</td>
<td>50 – 69</td>
<td>D</td>
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<td>149 or less</td>
<td>less than 50</td>
<td>F</td>
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**Tentative Schedule of Events (subject to change with fair notice):**

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Reading/Lecture Topic</th>
<th>Daily Events</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>8/21</td>
<td>Chapter 1: Course Expectations and Introduction</td>
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<tr>
<td></td>
<td>8/23</td>
<td>Chapter 2: Anatomy of the Nervous System</td>
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<td>2</td>
<td>8/28</td>
<td>Chapter 2: Nervous System cont.</td>
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<td></td>
<td>8/30</td>
<td>Chapter 3: Cells of the Nervous System</td>
<td>Quiz 1 (Chapters 1-3)</td>
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<td>3</td>
<td>9/4</td>
<td>Action Potentials and Synapses</td>
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<td></td>
<td>9/6</td>
<td>Intro to Chapter 4: Psychopharmacology&amp; Catch-up</td>
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<tr>
<td>4</td>
<td>9/11</td>
<td>Review</td>
<td>Chapters 1-4</td>
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<td></td>
<td>9/13</td>
<td>Midterm I</td>
<td>Chapters 1- 3 (TBD: select pages from chapter 4)</td>
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<tr>
<td></td>
<td>9/18</td>
<td>Chapters 4: Pharmacology and</td>
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<td></td>
<td>9/20</td>
<td>Chapter 5: Development of the Human Brain</td>
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<td>6</td>
<td>9/25</td>
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<td>9/27</td>
<td>Chapter 6: Vision</td>
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<td>10/4</td>
<td>Chapter 7: Nonvisual Sensation-Chemical Receptors</td>
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<td>10/9</td>
<td>Chapter 7: Nonvisual Sensation Mechanoreceptors</td>
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<td>10/11</td>
<td>Midterm II</td>
<td>Chapters 4 (select pp.), 5-7</td>
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<td>10/16</td>
<td><em>Chapters 7 &amp; 9: Nociception and Motivation--Thirst, and Hunger</em></td>
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<td>10/18</td>
<td><em>Chapter 9: Motivation--Thirst, and Hunger</em></td>
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<td>10</td>
<td>10/23</td>
<td>Chapter 11: Sleep/Waking</td>
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<td>10/25</td>
<td>Chapter 11: Sleep/Waking</td>
<td>Quiz 3</td>
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<tr>
<td>11</td>
<td>10/30</td>
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<tr>
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<td>11/1</td>
<td>Chapter 12: Learning and Memory</td>
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<td>11/6</td>
<td>Catch-up/Review</td>
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<td>11/8</td>
<td>Midterm III</td>
<td>Chapters 9,11,12</td>
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<td>11/13</td>
<td>Chapter 14: Emotion, Aggression and Reward,</td>
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<td>Date</td>
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<tr>
<td>11/15</td>
<td>Chapter 14: Stress</td>
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<td>11/20</td>
<td>Chapter 16: Psychological Disorders</td>
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<td>11/22</td>
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<tr>
<td>11/27</td>
<td>Chapter 16: Psychological Disorders</td>
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<tr>
<td>11/29</td>
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<td>Quiz 4</td>
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<tr>
<td>12/4</td>
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<tr>
<td>12/6</td>
<td>Film</td>
<td>EXTRA CREDIT DUE</td>
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**Final Date**  
Thurs. 12/13  
Exam: 12:15 – 2:30 PM