

Introductory Psychobiology Section 02 PSYC 30

Fall 2023 3 Unit(s) 08/21/2023 to 12/06/2023 Modified 08/12/2023

Course Description and Requisites

Biological approaches to understanding behavior: evolutionary, genetic, neural and hormonal influences on normal and abnormal behavior.

Prerequisite: BIOL 021 or BIOL 065.

Letter Graded

* Classroom Protocols

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. When we meet online, please be aware whether your mic is muted and when your camera is on.

Cell phones and other electronic devices

You are to turn off cell phones and other electronic devices before the beginning of class. For in-class ("live") instruction: 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. 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. Please note, email is not a mechanism to get extensive help with course content or with papers. Please come to my office hours for these other issues that require more discussion. Lecture notes will not be emailed to students. When lecture is missed, it is your responsibility to get lecture notes from a classmate. When sending an email to the instructor, please be certain to be specific about the topic. For example, the subject line should include the course ("Psych 30") and brief topic (e.g., "Appointment").

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".

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](http://www.sjsu.edu/academic_programs/calendars/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](http://www.sjsu.edu/advising/) at <http://www.sjsu.edu/advising/>. Procedures about add/drops, academic renewal, fee payment, withdrawal and so forth. These are listed under: <http://info.sjsu.edu/home/schedules.html>

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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](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

Program Information

Program learning outcomes (PLOs) are skills and knowledge that students will have achieved upon completion of the Psychology BA degree. Each course in our curriculum contributes to one or more of these PLOs. The PLOs for the Psychology BA degree are:

1. Knowledge Base of Psychology. Students will be able to demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
2. 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.
3. Critical Thinking Skills. 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.
4. Applications of Psychology. Students will be able to apply psychological principles to individual, interpersonal, group, and societal issues. Values in Psychology. Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

Course Goals

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, and they also investigate 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!

Course Learning Outcomes (CLOs)

Learning Outcomes

More specific course outcomes have been outlined in the *Summary of Events* associated with each quiz and exam (see below). Course and program learning objectives are as follows. See the complete syllabus.

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.

Course Materials

Text:

Freberg, L.A. (2019). *Discovering Behavioral Neuroscience: An Introduction to Biological Psychology* (4th Ed). Belmont, CA, Cengage Learning.

ISBN-10: 1305088700

ISBN: 9781337570930

Suggested Resource: Neuroscience on the Internet: <http://www.neuroguide.com>

Course Requirements and Assignments

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 (see **Extra Credit Points** below). 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 notes but you may NOT use Google or consult with other persons. Quizzes and other course materials will be available [Canvas Learning Management System course login website at http://sjsu.instructure.com](http://sjsu.instructure.com). Some short answers may be submitted in class. Midterm exams are scheduled on Thursdays. The final exam date is scheduled for Thursday 12/14 @12:15 PM.

Grading Information

Performance Outcomes and Points

<i>Assignment</i>	<i>Approximate percent</i>	<i>Points</i>
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Quizzes (4) 9% each 27 each (108 total)

Midterms (3) 15% each 45 each (135 total)

Final Exam 19% 57

Total 100% 300

Grading Scale (300 points)

Total Points	Percentage	Grade
269 – 300	90 – 100	A- to A+
239 – 268	80 – 89	B- to B+
194 – 238	65 – 75	C- to C+
150 – 193	50 – 64	D- to D+
149	less than 50	F

University Policies

Per [University Policy S16-9 \(PDF\)](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on the [Syllabus Information](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>) web page. Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

Week	Date	Reading/Lecture Topic	Daily Events
1	8/22	Chapter 1: Introduction and Course Expectations	See "Online Learning" in the Modules for course support
2	8/24	Chapter 2: Anatomy of the Nervous System	
	8/29	Chapter 2: Nervous System cont.	
3	8/31	Chapter 3: Cells of the Nervous System	
	9/5	Chapter 3: Membrane and Action Potentials and Synapses	Quiz 1

4	9/7	Action Potentials and Synapses	Quiz 1 Due
	9/12	Postsynaptic Potentials	
5	9/14	Midterm I	
	9/19	Intro to Chapter 4: Psychopharmacology	
6	9/21	Chapter 4: Psychopharmacology	
	9/26	Chapter 4: Psychopharmacology	
7	9/28	Chapter 5: Development of the Human Brain	Quiz 2
	10/3	Chapter 5: Development of the Human Brain	Quiz 2 Due
8	10/5	Chapter 6: Vision	
	10/10	Chapter 6: Vision	
9	10/12	Midterm II	
	10/17	Chapter 7: Nonvisual Sensation Mechanoreceptors	
10	10/19	Chapter 7: Nonvisual Sensation- Chemical Receptors	
	10/24	Chapter 7: Nonvisual Chemical Sensory Systems	
11	10/26	<i>Chapters 7: Somatosensation and Nociception</i>	Quiz 3
	10/31	<i>Chapter 9: Motivation--Thirst, and Hunger</i>	Quiz 3 due
12	11/2	<i>Chapter 9: Motivation--Thirst, and Hunger</i>	

	11/7	Chapter 11: Sleep/Waking	
13	11/9	Chapter 11: Sleep/Waking	
	11/14	Chapter 12: Learning and Memory	
14	11/16	Midterm III	
	11/21	Chapter 12: Learning and Memory	
15	11/23	THANKSGIVING	NO CLASS Quiz 4 posted
	11/28	Chapter 12: Learning and Memory	
	11/30	Chapter 14: Emotion, Aggression. Reward	Quiz 4 due
	12/1	Chapter 14: Emotion, Aggression. Reward	
	12/5	Chapter 16: Psychological Disorders	EXTRA CREDIT DUE
Final Date	Thursday 12/14	FINAL EXAM 12:15 - 2:30PM	ALL