

PSYC 111: Introduction to Biological Psychology

Spring 2018 Syllabus

Part 1: Course Information

Instructor Information

Instructor: Dr. Sharon Furtak, Assistant Professor of Psychology
- M.S. & Ph.D. in Behavioral Neuroscience from Yale University
- B.A. in Psychology from the University of Massachusetts, Amherst
- My research focuses on the neurobiology of emotional learning & memory.

Section 01 Class Location & Time: AMD 151, MWF 12:00-12:50am

Section 02 Class Location & Time: AMD 151, MWF 1:00-1:50pm

Office Hours, Time & Location: AMD 357A, Wed. 2-3pm & Th. 1:30-3:30pm

Office Telephone: 916-278-6666

E-mail: furtak@csus.edu, *I only respond to emails sent from your Sacramento State email address in order to verify student identity.*

Course Description

Introductory overview of the psychobiological aspects of behavior. Emphasis is on the central and autonomic nervous systems and the endocrine system. Topics include physiological factors involved in sensation, perception, motivation, learning, emotion, social behavior, and maladaptive behavior. Prerequisite: PSYC 2; PSYC 8, PSYC 101 recommended. Graded: Graded Student. Units: 3.0.

Textbook & Course Materials

Required Text (Available to purchase at the Hornet Bookstore or directly from the Pearson)

1. Purchase Revel for Physiology of Behavior (Access Code) by Neal Carlson. Price: \$102.25 from Bookstore, or \$79.00 directly from Pearson.
2. Other readings will be made available in Canvas (see Course Content). Material will be posted & updated regularly. **NO RECORDING OR PHOTOGRAPHY IN CLASS EXCEPT WITH THE EXPLICIT PERMISSION OF DR. FURTAK.**

Course Requirements

- Internet connection (DSL, LAN, or cable connection desirable)
- Access to Zoom (free to all students through IRT)
- Access to Adobe Reader & Microsoft Office (available in computer labs)
- Access to QuickTime or alternative video player software for mpg files.

Course Structure

This course is designed to provide a hybrid experience, including both face-to-face and online components. Contact time will be divided in the following way:

- Approximately 70% of class activities will occur in face-to-face sessions (see below for details).
- Approximately 30% of class activities will occur in online sessions (see below for details).

Face-to-Face (F-2-F) sessions will be held on the Sacramento State campus in AMD 151 and will consist of 50 min class sessions. Class time will be a combination of lecture presentations and active-learning activities.

Online sessions will be a blend of assigned videos and live lectures in a virtual classroom that use conferencing software called Zoom (free to all CSUS students). These sessions will be recorded and posted for asynchronous viewing (viewing at a different time than scheduled class). Additional activities that will occur online include discussions and quizzes.

Canvas Access

- This course will have materials posted online through a learning management system named Canvas. You will use your SacLink account to login to the course from the [Canvas login page](https://canvas.csus.edu/) (<https://canvas.csus.edu/>).
- **How can I learn about Canvas?** There are several ways to learn about Canvas including [Student Web Guides](#), a helpful [video series](#), and an [Online Canvas Orientation Course](#).

Technical Assistance

- **How can I get help with Canvas?** The Canvas Help menu is populated with valuable resources including a link to search the [Canvas Community](#) for answers to your requests. You can contact Academic Technology Center for support at (916)278-7337, canvas@csus.edu, or by visiting AIRC 2005.
- **If you experience technical difficulties** with your computer or network connection to the university please contact the Information Resource and Technology (IRT) Service Desk by e-mail: servicedesk@csus.edu, phone (916) 278-7337, or visit them in person at ARC 2005.
- If you **need assistance** navigating or operating Canvas please contact the Student Technology Center in AIRC 3007, 916.278.2364, or stc@csus.edu.

Important Note: This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check Canvas for updates to the syllabus. Changes will be communicated in a course announcement on Canvas.

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Part 2: Course Objectives

At the conclusion of the course, the goal is for you to have a clear understanding of the fundamental topics in Biological Psychology and how they contribute to human and animal behavior.

At the completion of the course you will be able:

- 1) to explain how neurons communicate and how drugs impact this communication,
- 2) to differentiate neuroanatomical distinct cortical (primary sensory areas) and subcortical (the basal ganglia, amygdala, etc...) structures of the nervous system,
- 3) to discuss how different sensory systems (e.g. visual stimuli) process and perceive stimuli in our environment,
- 4) to compare and contrast the role of the endocrine system (hormonal control) in reproductive behavior and in other basic functions of the body (i.e. either sleep or ingestive behavior),
- 5) to describe how synaptic modification within neural circuits underlie learning and memory, and
- 6) to apply what you have learned to understand the biological basis of mental illness.

You will meet these course objectives through a combination of the following activities in this course:

- Complete weekly assignments in Pearson's Revel *before* class.
- Attend all face-to-face (F-2-F) lectures.
- Complete ten quizzes by the due dates.
- Complete four examinations.
- Participate in face-to-face (F-2-F) group-based activities, and complete associated responses.

Regular class attendance and completing assignments as assigned will be necessary for the successful completion of this class.

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Part 3: Daily Schedule

Important Note: This syllabus and due dates of assignments is subject to change. It is the student's responsibility to check for and keep up with changes in due dates announced on Canvas. **F-2-F, denotes classes held in Face-to-Face sessions in AMD 151. *Online*, denotes classes held online using Zoom software or videos.

| Course Schedule | | | | |
|-----------------|--------|--|-----------------------------|---|
| Week | Module | Assignment | Date & Location | Topics & Assessment |
| 01 | 1 | Revel Ch. 1 Due Tues , 01/23/18 | M, Jan. 22 <i>F-2-F</i> | LECTURE 1: Introduction and historical foundation of Biological Psychology. |
| | | | W, Jan. 24 <i>F-2-F</i> | ACTIVITY 1: Split-brain patients and what they can tell us about consciousness. |
| | | | F, Jan. 26 <i>Online</i> | NO ONLINE SESSION THIS WEEK – BEGINS NEXT WEEK |
| 02 | 2.1 | Revel Ch.2 Part I Due Sun, 01/28/18 | M, Jan. 29 <i>F-2-F</i> | LECTURE 2: Communication within neurons: Diffusion and electrostatic pressure. |
| | | | W, Jan. 31 <i>F-2-F</i> | LECTURE 3: Communication within neurons: Resting membrane potential. |
| | | | F, Feb. 2 <i>Online</i> | LECTURE 4: Communication between Neurons: The action potential. |
| 03 | 2.2 | Revel Ch.2 Part II Due Sun, 02/04/18 & Quiz 1 Due Sat, 02/10/18 | M, Feb. 5 <i>F-2-F</i> | ACTIVITY 2: Ion movement during resting membrane potential and the action potential. |
| | | | W, Feb. 7 <i>F-2-F</i> | ACTIVITY 2 continued |
| | | | F, Feb. 9 <i>Online</i> | LECTURE 5: Reviewing neural communication. |
| 04 | 2.3 | Revel Ch.4 Due Sun, 02/11/18 & Quiz 2 Due Sat, 02/17/18 | M, Feb. 12 <i>F-2-F</i> | LECTURE 6: The six sites of drug action. |
| | | | W, Feb. 14 <i>F-2-F</i> | ACTIVITY 3: Drugs and your brain. |
| | | | F, Feb. 16 <i>Online</i> | LECTURE 7: Neurotransmitters and the drugs that affect them. |

| <i>Week</i> | <i>Module</i> | <i>Assignment</i> | <i>Date & Location</i> | <i>Topics & Assessment</i> |
|-------------|--|---|-----------------------------|---|
| 05 | 3 | Revel Ch.3 Due Sun, 02/18/18 | M, Feb. 19 <i>F-2-F</i> | LECTURE 8: Basic features and development of the brain. |
| | | & | W, Feb. 21 <i>F-2-F</i> | ACTIVITY 4: Location and function of structures within the brain. |
| | | Quiz 3 Due Sat, 02/24/18 | F, Feb. 23 <i>Online</i> | REVIEW SESSION: Exam 1 Review Session |
| 06 | 4.1 | Revel Ch.6 Part I Due Thurs , 03/01/18 | M, Feb. 26 <i>F-2-F</i> | Exam 1: Module 2-3 (Chapters 2, 3, and 4) |
| | | | W, Feb. 28 <i>F-2-F</i> | LECTURE 9: Visual processing: The eye and phototransduction in the retina. |
| | | | F, Mar. 2 <i>Online</i> | LECTURE 10: Visual processing: Transduction to perception. |
| 07 | 4.2 | Revel Ch.6 Part II Due Sun, 03/04/18 | M, Mar. 5 <i>F-2-F</i> | LECTURE 11: Visual processing: Perception of color, form, spatial location and Orientation. |
| | | & | W, Mar. 7 <i>F-2-F</i> | ACTIVITY 5: The visual sense from sensation to perception. |
| | | Quiz 4 Due Sat, 03/10/18 | F, Mar.9 <i>Online</i> | LECTURE 12: More than meets the eye: a review of visual processing. |
| 08 | 4.3 | Revel Ch.7 Due Sun, 03/11/18 | M, Mar. 12 <i>F-2-F</i> | LECTURE 13: Auditory & gustatory processing: Examples of other senses. |
| | | & | W, Mar. 14 <i>F-2-F</i> | ACTIVITY 6: Are you a super taster? |
| | | Quiz 5 Due Sat, 03/17/18 | F, Mar. 16 <i>Online</i> | REVIEW SESSION: Exam 2 Review Session |
| 09 | M-F, Mar. 19 – 23, 2018: SPRING BREAK, No Classes | | | |
| 10 | 5.1 | Revel Ch.10 Part I Due Thurs , 03/29/18 | M, Mar. 26 <i>F-2-F</i> | Exam 2: Module 4 (Chapters 6 and 7) |
| | | | W, Mar. 28 <i>F-2-F</i> | LECTURE 14: Hormonal regulation of sexual development. |
| | | | F, Mar. 30 | Cesar Cevaz Day, No Classes |

| <i>Week</i> | <i>Module</i> | <i>Assignment</i> | <i>Date & Location</i> | <i>Topics & Assessment</i> |
|-------------|---------------|--|-----------------------------|--|
| 11 | 5.1-5.2 | Revel Ch.10 Part II Due Sun, 04/01/18 & Quiz 6 Due Sat, 04/07/18 | M, Apr. 2 <i>F-2-F</i> | LECTURE 15: Hormonal regulation of sexual & parental behavior in adults. |
| | | | W, Apr. 4 <i>F-2-F</i> | ACTIVITY 7: Sexual differentiation: Applying new facts to the growth process. |
| | | | F, Apr. 6 <i>Online</i> | LECTURE 16: Signals to start and stop a meal. |
| 12 | 5.2 | Revel Ch.12 Due Sun, 04/08/18 & Quiz 7 Due Sat, 04/14/18 | M, Apr. 9 <i>Online</i> | LECTURE 17: Brain mechanisms for ingestive behavior. |
| | | | W, Apr. 11 <i>F-2-F</i> | ACTIVITY 8: Applying what we learned to our own eating habits. |
| | | | F, Apr. 13 | VIDEO: Ted Talk on Ingestive Behavior. |
| 13 | 6.1-6.2 | Revel Ch.11 & Ch. 13 Part I Due Sun, 04/15/18 | M, Apr. 16 <i>F-2-F</i> | LECTURE 18: Emotional learning & memory: Controlling fear and anger. |
| | | | W, Apr. 18 <i>F-2-F</i> | ACTIVITY 9: Modeling fearful behavior in rats. How does rat behavior translate to humans? Can it help treat anxiety symptoms? |
| | | | F, Apr. 20 <i>Online</i> | LECTURE 19: Neurobiology of Stimulus-Response, Motor, Perceptual and Relational Memory. |
| 14 | 6.2 | Revel Ch.13 Part II Due Sun, 04/22/18 & Quiz 8 Due Sat, 04/28/18 | M, Apr. 23 <i>F-2-F</i> | LECTURE 20: Synaptic plasticity and its role in memory formation. |
| | | | W, Apr. 25 <i>Online</i> | ACTIVITY 10: Revisiting synaptic connections and neural communication. |
| | | | F, Apr. 27 | REVIEW SESSION: Exam 3 Review Session |
| 15 | 7.1 | Revel Ch.16 Due Thurs , 05/03/18 & Quiz 9 Due Sat, 05/05/18 | M, Apr. 30 <i>F-2-F</i> | Exam 3: Module 5-6 (Chapters 9-12) |
| | | | W, May 2 <i>F-2-F</i> | LECTURE 21: The Neurobiology of Mental Illness: Schizophrenia and Affective Disorders |
| | | | F, May 4 <i>Online</i> | VIDEO: Documentary on Schizophrenia |

| Week | Module | Assignment | Date & Location | Topics & Assessment |
|-------------|-------------------------|--|--|--|
| 16 | 7.2 | Revel Ch.18 Due Sun, 05/06/18 | M, May 7 <i>F-2-F</i> | LECTURE 22: The Neurobiology of Mental Illness: Substance Abuse |
| | | & Quiz 10 Due Sat, 05/12/18 | W, May 9 <i>F-2-F</i> | LECTURE 23: Mental Illness in the 21 st Century. |
| | | Study for Exam | F, May 11 <i>Online</i> | REVIEW SESSION: Final Exam Review Session |
| 17 | May 14-18 th | | Final Exam (Exam 4): Module 7 (Chapters 15 and 16) | |

Psychology/SSIS

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Part 4: Grading Policy

Graded Course Activities

Visit the **Course Content** link in Canvas for details about each assignment listed below. (See Part 1 for more information about accessing tools and activities).

| Percentage & Points | Description |
|--|---|
| <p>60 % 600 pts total 150 pts per exam</p> | <p>1. <i>Exams.</i> There will be 4 exams, which will be composed of multiple-choice and/or essay questions. Dates of exams are marked in the Daily Schedule. Makeup exams will only be approved with a valid & documented reason (i.e. hospitalization). The makeup exam must be taken <i>within 72 hours</i> of the testing day.</p> |
| <p>20 % 200 pts total 1 pt per question</p> | <p>2. <i>Revel Module Quiz Assignments.</i> Revel is an online tool from Pearson publishing that is accessible through Canvas. The tool is to help you read the material and quiz yourself on your comprehension. Due dates, which occur prior to class lectures, are listed in the Daily Schedule. Materials open 1 week prior to the due date.</p> |
| <p>10 % 100 pts total 10 pts per quiz</p> | <p>3. <i>Chapter Quizzes.</i> A total of 10 quizzes will be given online in Canvas; quizzes due dates are marked in the Daily Schedule. <i>No</i> make-up quizzes will be given. The lowest grade will be dropped. Only the 10 highest grades will count toward your final grade. Materials open 1 week prior to the due date.</p> |
| <p>10 % 100 pts total 10 pts per response</p> | <p>4. <i>Group Work and Responses.</i> A total of 10 classes will consist of group activities followed by class discussion as marked in the Daily Schedule. The last 10-15 minutes of each of these days will be spent responding to a prompt based on the activity. Responses will be collected at the end of the class and graded. Credit will only be given to those students who are in attendance & participating.</p> |
| <p>100 % 1000 pts total</p> | <p>Total Percentage/Points Possible</p> |

Late Work & Make Up Policy

There will be **no** late submission of course material unless otherwise posted. If you miss an exam for a valid & document reason (i.e. hospitalization), then you must contact Dr. Furtak immediately and take a make-up exam within 72 hours of the original test date. Be sure to pay close attention to deadlines in the Canvas Calendar, a link is posted on the left side of the Navigation panel.

Viewing Grades in Canvas

Points you receive for graded activities will be posted to the Canvas Grade Book typically within 7 days of the assignment/quiz due date. Click on the My Grades link on the left navigation to view your points. It is your responsibility to check these grades once posted. *If you have a question or complaint about a grade posted on Canvas, then you must email Dr. Furtak within 7 days of the posted grade.* In the email, please put in subject line "question regarding grade" and within the email make sure to state which assignment you are referring to and exactly where you believe a grading error was made. Only emails from your CSUS email address will be responded to by the professor so that identity can be made and validated.

Letter Grade Assignment

Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows, point values are not rounded up:

| Letter Grade | Percentage | Points | Performance |
|--------------|------------|----------|-----------------------|
| A | 94-100% | 940-1000 | Excellent Work |
| A- | 90-93.99% | 900-939 | Nearly Excellent Work |
| B+ | 87-89.99% | 870-899 | Very Good Work |
| B | 84-86.99% | 840-869 | Good Work |
| B- | 80-83.99% | 800-839 | Mostly Good Work |
| C+ | 77-79.99% | 770-799 | Above Average Work |
| C | 74-76.99% | 740-769 | Average Work |
| C- | 70-73.99% | 700-739 | Mostly Average Work |
| D+ | 67-69.99% | 670-699 | Below Average Work |
| D | 60-66.99% | 600-669 | Poor Work |
| F | 0-59.99% | 0-599 | Failing Work |

Important note: For more information about grading at Sac State, visit the academic policies and grading section of the university catalog.

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Part 5: Course Policies

Attend Class

Students are expected to attend all face-to-face class sessions as listed on the course calendar. Attendance at face-to-face class meetings and participation in activities is essential for the success of the hybrid experience. Please see Part 4 for grading relative to participation.

Participation

Student participation in the classroom is important, especially during group activities. Your comprehension of the material related to the activity will be assessed in responses that are handed in the day of the activity. Make sure to come prepared and participate. If you don't understand a topic or if I am lecturing too quickly, other classmates will too. Let me know I need to slow down by raising your hand. Please see Part 4 for grading relative to class activities.

Build Rapport

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let Dr. Furtak know as early as possible. As you will find, building rapport and effective relationships are key to becoming a professional. Make sure that you are proactive in informing Dr. Furtak when difficulties arise during the semester so that we can help you find a solution.

Complete Assignments

Revel assignments and quizzes for this course will be submitted electronically through Canvas; whereas, activity responses and exams will be conducted and handed in during class. Assignments must be submitted by the given deadline or special permission must be requested from instructor *before the due date*. Extensions will not be given beyond the next assignment except under extreme circumstances.

Understand When You May Drop This Course

It is the student's responsibility to understand when they need to consider disenrolling from a course. Refer to the Sac State Course Schedule for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if there is a documented medical reason. All incomplete course assignments must be completed within 1 year.

Inform Your Instructor of Any Accommodations Needed

If you have a documented disability and verification from the [Office of Services to Students with Disabilities](#) (SSWD), and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to SSWD and meet with a SSWD counselor to request special accommodation *before* classes start. If you have special test taking arrangements, then you must give Dr. Furtak notification at least 72 hours before the scheduled exam/quiz date.

SSWD is located in Lassen Hall 1008 and can be contacted by phone at (916) 278-6955 (Voice) (916) 278-7239 (TDD only) or via email at sswd@csus.edu.

Commit to Integrity

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom. **If you are found cheating, then you will be reported to the Office of Academic Conduct and you will receive an F in the course.**

Sac State's Academic Honesty Policy & Procedures

"The principles of truth and honesty are recognized as fundamental to a community of scholars and teachers. California State University, Sacramento expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades."

Read more about Sac State's [Academic Honesty Policy & Procedures](#)

Definitions

At Sac State, "**cheating** is the act of obtaining or attempting to obtain credit for academic work through the use of any dishonest, deceptive, or fraudulent means."

"**Plagiarism** is a form of cheating. At Sac State, "plagiarism is the use of distinctive ideas or works belonging to another person without providing adequate acknowledgement of that person's contribution."

Source: Sacramento State University Library

Important Note: Any form of academic dishonesty, including cheating and plagiarism, may be reported to the office of student affairs.

Course policies are subject to change. It is the student's responsibility to check Canvas for corrections or updates to the syllabus. Any changes will be posted in Canvas.