

Instructor: Ann Culligan, Ph.D.
Lecture: Monday–Thursday, 9:30-10:20 am, ARC 147
Office: Guthrie 125 (see Canvas for hours)
Preferred email: through Canvas inbox
Other email: anncv@uw.edu

Teaching assistants: See Canvas for office hours, discussion sections, & CLUE schedule

RACHEL GEYER, TA
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Course description: Biopsychology is focused on the structure and function of the nervous system. This course will provide the foundation for understanding the biological basis of behavior necessary to major in Psychology. This quarter we will cover the perspectives, questions, and techniques of neuroscience, brain cell structure and function, neural communication, neurotransmitters, neurological disorders and treatment, brain development, and neural systems responsible for motivation, learning, emotion, stress, sleep, sensation, perception, and consciousness.

Course goals:

Following this class, students will be able to:

- Describe the structure and function of brain cells, regions, systems, and their role in behavior.
- Characterize different neurotransmitter systems and drugs that affect each system.
- Describe the physiological basis for sensation, perception, sleep, reproduction, development, emotion, learning, attention, and mental illness.
- Identify and describe the hypothesis, methodology, results, and conclusions reported in scientific papers.
- Critically evaluate media reports on the brain and behavior.

Course structure: Research has found that active learning is associated with improved student engagement, retention, and performance. Based on these findings, this class has been designed to put you at the center of your own learning. You will complete the assigned reading and preparation questions before each class meeting and come prepared to contribute to discussion on the material. I will come prepared to help you organize and review the material that you have gathered through the readings and assignments. In order to maintain an equitable environment where all voices are heard equally, students will be called on at random to answer questions on the material. Other forms of participation will also be included throughout the quarter, all of which will necessitate being present and prepared to participate. Questions that arise during

lecture should be posted on the Canvas discussion board, where they will be included as a component of your active learning.

Course accessibility: Dr. Culligan and the teaching staff are committed to creating an accessible learning environment for all students in this course. "'Accessible' means those with a disability are able to acquire the same information and engage in the same interactions - and within the same timeframe - as those without disabilities." (University of Montana, Office of Civil Rights Settlement Agreement, 2012)

To request accommodations due to a disability or learning difference, contact Disability Resources for Students, 011 Mary Gates Hall, (V: 543-8924, TTY: 543-8925). DRS will contact Dr. Culligan with a letter about your accommodations.

COURSE REQUIREMENTS

- **Textbook:** Lambert, K. (2018) Biological Psychology, 1st edition.
- **Poll Everywhere app on smartphone, tablet, or laptop**

Course website: <https://canvas.uw.edu>

- Assignments, readings (other than the textbook), preparation questions, lecture outlines, screencasts, and other resources are available on Canvas.
- Course announcements will be made through Canvas. It is your responsibility to be aware of this information, as well as any direct communication from a member of the teaching staff.
- Set up ASAP or daily-summary emails from Canvas alerting you to important communication. Do this in Canvas under "Account" --> "Notifications" page. "Conversations" and "Announcements" are the two critical areas to stay on top of daily, other potential notifications are up to you.
- Be sure to check the Canvas website and your email regularly for any schedule changes or other important information.

Email: The Canvas inbox is the preferred mode of communication with the teaching staff.

- Private messages should be sent through the Canvas inbox.
 - Emails will typically be answered within 24 hours during the week, and 48 hours over weekends.
 - When emailing a professor or TA: address the recipient, use proper grammar, be honest, courteous, and brief, and sign your name. Do not include the word "Urgent."
 - If you have an inquiry or issue that will take more than a brief email to answer, please meet with one of the teaching staff during office hours or by appointment.
- Questions on course material are to be posted on the course discussion board.
- Direct questions about assignments, exam questions, and quiz section participation to your TA.
- Direct questions about course accessibility, in-class participation, and grading matters not addressed in this syllabus to Dr. Culligan.
- If you are unsure about who to direct an email to – send it to both your TA and Dr. Culligan.
- Emails asking a question that is clearly answered in the syllabus or on the website, or requesting a change of grade after the end of the course **will not be answered**. Read the syllabus and course

website, and be aware of course policies so that you can stay on top of your performance in this class.

Course policies:

- **Etiquette:** Please be respectful during lecture and quiz sections. This includes paying attention to your instructors and fellow students.
 - **Cell phones are to be used only for responding to Poll Everywhere questions.** Using a cell phone for other reasons during class is inconsiderate, distracting, and a detriment to your learning. If a conversation or activity on your phone is a priority, do not come to class.
 - **Laptop policy:** Laptops are permitted in the back rows, and far left (your left, as you are sitting in the classroom) seats only.
- **Attendance:** Lecture will be in session 9:30-10:20am, Monday-Thursday. Be in your seat at 9:30am and do not begin packing up until Dr. Culligan has signaled the end of class.
 - **If you miss class:**
 - It is your responsibility to get the information you need from the screencast.
 - **Absolutely no doctor's notes or other written excuses will be accepted.** Your health status is protected by law, and not your professors' business. To protect your privacy, the course grading policies allow for a few absences without harming your grade. These policies will not be altered for an individual's special circumstances. It is up to you to balance your own academic performance, well-being, and other life priorities.
 - If you experience an extended illness or other ongoing issue that is impacting your overall academic performance, contact Student Health and Wellness (206.543.6085; Elm Hall 109) for assistance managing your unique circumstances.
- **Grade inquiries:** All grades will be posted in your Canvas gradebook. It is your responsibility to keep track of how you are doing in the course. If you are concerned about your performance in class, come to office hours to speak with the professor or your TA right away. Do not wait until the end of the quarter – there is very little that can be done at that point.
 - **If you have a question about a specific grade:** You have one week from the time the grade was posted to ask your TA or professor to check on the grade for you. (Do not ignore your grade all quarter.)
 - **The last day to drop a class or change to S/NS status is 5/19/19.** After this date, there is little that can be done to prevent a failing grade from appearing as 0 on your transcript.
 - **Additional extra credit or makeup work will not be granted.** Keep up with the assigned work during the quarter, be aware of your grades, and seek help early if needed.
- See specific grading policies below

GRADING

Exams (175 pts; 40% of course grade) There will be one online introduction quiz (25 points) and 4 midterm exams (50 points each) throughout the quarter. Each exam will be given on the date listed in the course schedule.

- Introduction quiz is found on Canvas, to be taken during the first week of class.
- Midterm exams will be based on lectures, assigned readings, and discussion section work.
- Bring your student ID, a scantron and #2 pencil and eraser to all exams.
- Arrive on time; no late-comers will be admitted to the classroom after 9:45am.
- Your lowest one midterm exam grade will be dropped, resulting in a total of 150 possible exam points.
 - Your lowest score is automatically excluded from your total grade calculation in the course gradebook. (This may be a zero from a missed exam, or the lowest score if you have taken all exams.)
 - This policy gives every student the right and responsibility to determine when and why an exam might be missed. Regardless of circumstances - do **not** contact Dr. Culligan or your TA regarding a missed exam.
- Because the lowest exam grade is dropped, there will be **no make-up midterm exams or exams given early.**

Final exam (75 pts; 20% of course grade) The final exam is *required*, and will take place **8:30-10:20AM** on Wednesday, June 12, 2019.

- It will consist of 50 questions on material covered in lectures and readings since exam #4, and 25 questions on concepts presented throughout the quarter.
- Bring your student ID, a scantron, and a #2 pencil and eraser.
- Arrive on time, as no one will be admitted to the classroom after 8:45am.
- Plan ahead - there will be **no final exams given early.**

Quiz section (QS) preparation and participation (20% of course grade) Quiz section activities are designed to build skills necessary for success in the Psychology major, help you to think actively about behavioral neuroscience, introduce you to new concepts, and review course material.

- Your participation in weekly quiz sections will be graded. You must be **prepared** and **present** for quiz section.
 - **Preparation:** Each week a brief written assignment (detailed on Canvas) is due in section or on Canvas (this will be included in the assignment details – pay attention, as failure to turn in your assignment at the correct location will result in lost points).
 - Preparation assignments may not be turned in late.
 - Submissions containing an empty document or the wrong assignment will earn a 0 in the gradebook. There are no resubmissions after the due date. Submit the complete, correct assignment on time.
 - **Participation:** Each week you will present or utilize your written assignment in section while engaging with your classmates.
 - Participation points may not be made up.
- The lowest quiz section score will be dropped, meaning that one absence is allowed. If you miss a quiz section, do not contact your teaching assistant – excuses are neither necessary nor will they be considered.

- Multiple quiz section absences will result in lost participation points. It is wise to save your allowed absence in case of emergency. Additional extra credit or makeup work will not be granted.

Class participation (15% of course grade) Classes will be structured around active learning techniques that focus on student comprehension of foundation concepts.

- Certain in-class activities will be graded, on a variable interval schedule. You must be **prepared** and **present** to earn credit on these activities.
- Preparation includes: completing the assigned reading and the associated preparation questions (found on Canvas) before class.
- Participation points cannot be made up and credit will not be given for anything other than in-class participation. (No excuses needed or considered!)
 - One bonus question will be included each week, to compensate for technical issues and/or a few missed class days.
- Activities will include (but are not limited to): answering questions when called upon, participating in demonstrations, and responding via the Poll Everywhere app. You are required to have access to this app on a smartphone or laptop, as part of your preparation.
 - Be sure that you are logged into polllev.com/anncv at the start of each class, so that you are prepared to respond when questions are presented.
 - You must be logged in using your UW netID to earn credit in this class. See the Canvas page for instructions on how to log in correctly.
 - Failure to do so will result in lost participation points, which cannot be made up.
 - Poll Everywhere grading:
 - Factual questions: Correct answers will earn 1 point; incorrect attempts will earn 0.5 point.
 - Opinion or other subjective multiple-choice responses will earn 1 point.
 - Only multiple-choice questions are graded; open-ended questions cannot currently be graded (due to a design flaw in the Poll Everywhere system).
 - Points will be deducted if you write something disrespectful. (Answers are not anonymous.)
 - If your Poll Everywhere app or device is not working, visit Learning Technologies on the second floor of Odegaard library.

Online Q&A participation (25 pts; 5% of course grade) To reduce distractions in class AND address all questions that may arise, questions will be posted and answered on a specific Canvas discussion board.

- When you have a question in class, write it down, and (after class) post it on the designated discussion board (“Exam # Questions and Answers”).
- All students are required to post at least one question, per two week period leading up to an exam. (On the current “Exam # Questions and Answers” board.)
 - Questions and answers are due by 11:59pm on the Friday before the associated exam.
 - You may post as many questions as you have, but only one is required. (2 points)
 - If you post multiple questions, please post them separately.

- All students are also required to post at least one answer in reply to one of the posted questions. This answer must be a substantial explanation of the answer to the question.
 - Grading will be based on the correctness and clarity of your answer. (2 points)
 - You must include at least one academic source – either the textbook or a journal article – in your answer. Give the citation in your answer post. (1 point)
 - You may answer your own question or another student's question.
 - Only answer as many questions as you have posted. (If you only posted one question, only post one answer.)
 - Do not post an answer until you have posted your own question.
 - Do not answer a question that has already been answered.

Academic Integrity – Read the statement of academic responsibility found at

<http://web.psych.washington.edu/writingcenter/writingguides/pdf/acadresp.pdf> (This is linked on the course website under “Assignments and readings.”) You are responsible for knowing all of the material contained therein. Of relevance to this course, **please pay close attention to the sections on cheating on exams and plagiarizing written work.** Students suspected of violating UW policies will receive notice of the suspicion, and may be subject to the following penalties: a grade of **0** for that test/paper, being reported to the committee on academic conduct, and failing the course.

Grading Scale

Your final grade will be calculated based on the exams, preparation and participation described above. Each category will be weighted according to the percentages stated above and in the gradebook. Weighting will be done automatically in the gradebook, and the total grade shown in gradebook is your accurate current grade.

Your GPA grade will be determined using the following equation: $(\text{Percentage score} - 55)/10$

For example, a final percentage grade of 90.7% would be converted into a GPA as follows:

$$(90.7 - 55)/10 = 3.6$$

All grades are calculated based on this equation, and grades will never be modified according to individual needs. See Canvas for more details on grading.

Course Schedule

Date	Topic	Reading (from textbook, unless otherwise indicated) and assignments due on this date:
Week 1 M 4/1	Course introduction	Syllabus & UW Academic responsibility statement
T	Neuroscience history, questions, and perspectives	Chapter 1
W	Neurons and glia	pp. 31-37
Th	Nervous system divisions	pp. 37-45 Due online: QS1 Introduction post
F	Quiz Section	In section: Introductions, getting started

Week 2 M 4/8	Nervous system divisions	pp. 46-53
T	Navigating, protecting, and supporting the nervous system	pp. 53-60 Due online: Course introduction quiz
W	Brain development	pp. 130-142
Th	Nervous system wrap-up	
F	Quiz Section	Due online and in section: QS2 exam tutorials Due online: Exam 1 Q&A posts
Week 3 M 4/15	Exam 1	
T	Neuronal communication	pp. 63-73
W	Neuronal communication	pp. 73-86
Th	Neurochemistry	pp. 89-94
F	Quiz Section	Due in section: QS3 assignment
Week 4 M 4/22	Pharmacology	pp. 94-97
T	Drug effects	pp. 98-108
W	Addiction	pp. 108-118
Th	Pharmacology wrap-up	
F		Due online and in section: QS4 exam tutorials Due online: Exam 2 Q&A posts
Week 5 M 4/29	EXAM 2	
T	Sensation to perception	pp. 151-164
W	Visual processing	pp. 164-170
Th	Endocrine system Sexual differentiation	pp. 311-318
F	Quiz Section	Due in section: QS5 assignment
Week 6 M 5/6	Reproductive behaviors	pp. 318-328
T	Parental behaviors	pp. 328-336
W	Biological rhythms and neural correlates of arousal and rest	pp. 249-258
Th	Functions and disorders of sleep	pp. 258-278
F	Quiz Section	Due online and in section: QS6 exam tutorials Due online: Exam 3 Q&A posts
Week 7 M 5/13	EXAM 3	
T	Learning	pp. 339-346
W	Learning	pp. 346-354
Th	Memory systems	pp. 354-365
F	Quiz Section	Due online: QS7 assignment
Sunday, May 19, 2019 – Last day to drop a class/change to S/NS status		

Week 8 M 5/20	Emotional expression and recognition	pp. 281-288
T	Fear and aggression	pp. 288-296
W	Emotional regulation	pp. 297-306
Th	Emotions – wrap-up	
F		Due online and in section: QS8 exam tutorials Due online: Exam 4 Q&A posts
Week 9 5/27	Memorial Day – no class	
T	EXAM 4	
W	Mental illness & schizophrenia	pp. 373-386
Th	Mood disorders	pp. 387-395
F	Quiz Section	Due in section: QS9 assignment
Week 10 M 6/3	Anxiety disorders	pp. 395-402
T	Autism & ADHD	pp. 84, 147-148, 126, 365
W	Parkinson's & Alzheimer's disease	pp. 205-207, 140-141
Th	Brain injury	pp. 143-148
F	Quiz Section	Due online and in section: QS10 exam tutorials Due online: Final exam Q&A posts
6/12	FINAL EXAM – Wednesday, 6/12, 8:30-10:20am	<i>No one admitted after 8:45am.</i>

TIPS FOR STUDYING AND KEEPING UP IN PSYCH 202

The largest library in disorder is not so useful as a smaller but orderly one; in the same way the greatest amount of knowledge, if it has not been worked out in one's own mind, is of less value than a much smaller amount that has been fully considered. For it is only when a man combines what he knows from all sides, and compares one truth with another, that he completely realises his own knowledge and gets it into his power. A man can only think over what he knows, therefore he should learn something; but a man only knows what he has pondered. - Schopenhauer

Make a schedule - Go through the syllabi for your classes and figure out how much time needs to be spent on the work for each class, each day - including time for big projects and studying for exams. As a rule, for each credit hour you should be reading/reviewing 2-3 hours per week outside of class time (10-15 hours per week, for Psych 202). Block off and label time for each class in your calendar. This will provide you with both structure and a reminder to put in the time that you will need to commit, in order to succeed in your classes.

Keep up with the reading - It is up to you to plan for completing the assigned reading by the day it is due, as listed on the schedule. However, everyone has a different reading style and pace, meaning that it takes different people different amounts of time to complete the reading. To prepare for success, consider your own schedule and reading habits, and plan to complete the assigned readings at a pace that works for you.

Review daily

- On lecture days, start by reviewing your notes from lecture. This will help you identify any gaps in your notes or things that are unclear, while the material is still fresh. If you missed something, check the lecture recording to fill in the gaps. If you remain confused about a concept, talk to your professor or a teaching assistant for clarification.
- Every day, go through the preparation questions posted on Canvas. Answer each question, explaining the concepts aloud. If something is not yet clear, review the reading and your notes, then ask for help if needed.

Outlines - Make outlines of ordered or hierarchical material. This will help you to keep concepts grouped with related content. It will also help you to see an orderly progression of the information, instead of several unattached chunks of information.

Self-test - Quiz yourself often. Use the self-tests throughout the book chapters, as well as the preparation questions provided on the course website.

- Pretend that you had to teach the concepts to the class. Could you explain it well? When you can comfortably explain something to others, you have a true understanding of the concept.

Study groups - Studying with others has the danger of devolving into unfocused chatting, as well as the potential for excellent learning. If you will be studying with others, keep these pointers in mind:

- Go prepared. Do not rely on group time to learn everything you will need for the test. Go prepared to explain concepts to others, and to ask thoughtful questions about the concepts. Figure out what you really know, and really don't know, before you go.
- Take turns teaching each other. Agree on division of labor beforehand, and prepare a mini-lesson on some of the concepts. Present these. Your preparation will ensure that you REALLY know that topic, and your presentation will review it for others.
- Quiz each other. Prepare a quiz before hand, or choose concepts from the preparation questions at random and make sure everyone in the group understands the concept.

Review sessions will be held weekly at CLUE. If you want extra review or help, please attend these sessions. (Check the course website for days and locations.)

Physical preparation - You need sufficient energy and sleep to be a successful student.

- Energy comes from what you eat, so pay attention to that. Be sure that you are consuming enough carbohydrates, protein, and fats - your body needs all three, and your brain is a huge consumer of energy (20% of your daily energy expenditure!). Keep it fueled with an adequate and balanced diet.
- Your brain also needs sleep to optimally consolidate information. As we will discuss this quarter, sleeping allows your brain to sort, process and store the information that you are studying. You are putting huge resources into being in college and learning - don't forget that sleep is a critical part of your success.

If you need help this quarter:

- For help with course material, contact any of the teaching staff, at any time.
- If you are struggling with psychological/emotional issues:
 - On-campus counseling resources:

- UW counseling center: 401 Schmitz hall, 206-543-1240
 - Hall health mental health center: 206-543-5030 (appointments) or 206-583-1551 (emergencies)
- Crisis lines (for immediate help):
 - UW Medical Center ER: 206-598-4000
 - King County Crisis Line: 206-461-3222
- If you are struggling with life circumstances beyond your control:
 - Contact the Student Care Program (through Student Health and Wellness): 206-543-6085 or livewell@uw.edu
 - Emergency financial assistance is available through the UW Emergency Aid program (<https://www.washington.edu/emergencyaid/>)
 - Contact your professors to let us know – often we can help you avoid a 0 in the course, if you communicate with us about your situation in a timely manner.