

Contact Info: Dr. Elizabeth I. Flandreau; flandree@gvsu.edu

2129 Au Sable Hall (ASH)

Office Hours: 12:15-2pm Tuesday and Thursday & by Appointment

Final Exam: Tuesday April 23; 4-5:50pm

Required Reading:

1. Carlson Physiology of Behavior 12th Edition* (<https://www.amazon.com/Physiology-Behavior-Books-Card-12th/dp/0134319273>)
2. Neuroscience Online <http://neuroscience.uth.tmc.edu/toc.htm>
3. Khan Academy www.khanacademy.org

* *There is a copy on reserve at the library. I recommend having a personal copy, but it doesn't matter if you have the physical or digital text. We will not be using any additional online content for Carlson.*

Course Description: This course emphasizes the study of bodily structures, processes, and mechanisms related to various aspects of the organism's interactions with the environment. Topics covered include neurophysiological correlates of cognition, memory, motivation, emotion, attention, and sensory processes.

Course Prerequisites: PSY 330; Students should already be familiar with...

1. The structure and function of neurons
2. The process of communication within and between neurons
3. The five developmental divisions of the brain, their principle structures in the mature brain, and the function(s) of those structures.
4. Neuroanatomical directional terms

Course Outcomes: From Syllabus of Record

1. Describe the process of action potential, including how and why they occur
2. Explain in detail the steps of neurotransmission and compare and contrast the specific process of synaptic transmission for diverse neurotransmitters and receptors.
3. Identify the behavioral function of major brain chemical systems, predict the effect of damage to these cells, pathways, or structures.
4. Critique original research in behavioral neuroscience, identify limitations to current knowledge, integrate information from varying sources into a cohesive whole
5. Discuss current topics in behavioral neuroscience research

GRADING: $Grade = \text{Earned Points} / \text{Total Points} \times 100$

A	93-100%	B	83-86.99%	C	73-76.99%	D	60-66.99%
A-	90-92.99%	B-	80-82.99%	C-	70-72.99%	F	0-59.99%
B+	87-89.99%	C+	77-79.99%	D+	67-69.99%		

Please take a moment to consider what each grade means:

- **C:** You did the necessary work, you learned the basic material – you know the correct answers.
- **B:** The above, plus you could teach the material to a friend. You understand the correct answers.
- **A:** The above, plus you can use the material flexibly and adaptively. You understand WHY the answers are what they are, and how this relates to material from other classes.

PSY435 GRADING:

Category		Points (Each)	#	Total	%	Notes
Online Quizzes	Syllabus Quiz	5	1	5	1.00	The syllabus is like a contract, it's important to understand the terms. Full credit only for perfect score.
	Online "reading" quizzes	5	15	75	15.00	There are currently 17 on the schedule.
Participation	BB DBs	4	3	12	2.40	Ask one <i>previously unasked</i> question and <i>correctly</i> answer one question.
	In Class Contribution	5	9	45	9.00	On time attendance and <i>meaningful</i> contribution during specified dates (10 days on schedule).
Group Assignments (Graded based on content-group; and contribution-individual)	Homework 1	20	1	20	4.00	
	Article (Re)Submission	3	1	3	0.60	Resubmission, if needed, will replace original score
	Outline	5	1	5	1.00	
	Written	35	1	35	7.00	
	Presentation	30	1	30	6.00	
Exams	Exams	90	3	270	54.00	Format = diagrams, short answer, and essay; Exams are cumulative as the material builds on itself across the semester
Total				500	100	

Academic Integrity: It is your responsibility to maintain academic integrity and avoid appearance of a violation of the GVSU Student Code [Section 223.01]. If you are uncertain prior to submission of an assignment, project, or test, please see the instructor as soon as possible. The materials presented in this class are copyright protected and may not be used without the express prior consent of the instructor. At instructors' discretion, a violation of this code may result in failing the assignment or the course. Violations are reported to the Dean.

Checklist for Assignments to be CONSIDERED for credit:

1. Submissions in Microsoft Office
2. Filename MUST be Section#Team#Homework#. It's insufficient to just name the file within BB; it must be the name of the file on your computer.
3. Team # and names present in APA-style title page.
4. Language in your **own voice** with no hint of plagiarism. Each individual is responsible (and will be held accountable) for academic integrity of the group assignment.

Note: Taking another's words and swapping out synonyms or word order even with citation is plagiarism and violates academic integrity.

5. Resources cited in APA style
6. Instructor cannot accept LATE or EMAILED submissions. Please submit to BB early to avoid problems.

DESCRIPTION OF GRADED ITEMS:

ONLINE QUIZZES

- *Syllabus quiz*: The syllabus is an important document and success in this course necessitates understanding the requirements. This quiz is different than the others. You can still take it up to 3 times, but the HIGHEST grade will be used... as long as that is a PERFECT SCORE. **If you earn less than a perfect score after 3 attempts, your final grade for this quiz will be 50%.**
- *Reading Quizzes*: Online quizzes are open note and come from a pool of questions; typically, 10 questions are randomly selected for each quiz. Online quizzes provide instant feedback with low stakes and tend to have a positive impact on students' overall grade. Quizzes are designed to ensure that students are prepared in advance of class.

PARTICIPATION

- *Discussion Board*: Peer-instruction helps to make complex material more accessible. Use the discussion board (DB) for **all** content questions. At a minimum you must ask at least one (PREVIOUSLY UNASKED) question and CORRECTLY answer at least one question posted by instructor or peer.
- *In-Class Participation*: We use a partially "flipped" model for this class. Some days will be more discussion-based than others. On these days, it is essential that all students attend on time and contribute to the conversation. Therefore, attendance is required on these days. Full credit will be earned only for arriving on time, prepared for class (e.g. required reading and videos) and providing meaningful active contribution.

GROUP ASSIGNMENTS

Assignments are designed to help you learn to find, digest, and discuss, complex material and to forge meaningful interactions with other humans. You will work with a group throughout the semester to take a closer look at a topic of interest. **Assignments that do not meet the submission requirements (see checklist) will earn a zero**

- *Homework 1*: with your team you will answer a series of topic-related questions IN YOUR OWN VOICE.
- *Paper*: With instructor assistance, you will select a peer-reviewed, primary research article, study the techniques the authors employed, understand the results achieved and the interpretation of those results. Then you will write an APA-formatted paper explaining your understanding of the article. Additional details will be provided on BB
- *Presentation*: During the final exam slot, each group will be responsible for TEACHING what they learned to the rest of the class using a PPT presentation and Q and A session.

EXAMS

- Topic-specific learning objectives are your study guides.
- Where there is choice on exams, X out the question you do not want graded (the first question with something written on the page will be graded unless otherwise specified.)
- **All exams are (semi) cumulative because the material builds on itself across the semester.**

PSY435 POLICIES: This course is subject to GVSU policies <http://www.gvsu.edu/coursepolicies/>

- *Attendance:* With a few exceptions (see schedule) attendance is NOT required. That said, you are responsible for all announcements and information presented in class and we may cover material that is not in Carlson or NSO. Please arrive on time and prepared to participate. Students who are unable or unwilling to engage in the class discussion, may be asked to leave.
- *Email Policy:* Before emailing, check the syllabus, schedule, and BB announcements for answers. Content-based questions must be posted to the discussion board so everyone can benefit from the answers; please let me know if your DB question has not been answered to your satisfaction. Remain professional in email communication; include the class and section #, use full sentences, and sign your full name. **I may address inquiries in class rather than responding to emails.** I typically answer emails within one business day.
- *Blackboard:* Important class information and announcements are posted to blackboard. Please monitor Blackboard and check your email regularly to ensure that you do not miss anything.
- *Office Hours:* Please visit me in office hours, that's why I'm here! Beyond course content, I can help students develop skills for studying, time-management, and test-taking. If you are unavailable during office hours, email to schedule an appointment.
- *Course Schedule:* Details are subject to change; pay close attention to announcements and the calendar tool on BB. Pro tip: set alerts on your phone for deadlines! Late assignments are not accepted.
- *Canceled Classes:* Unless the instructor emails otherwise, if classes are canceled at the university, any exam will take place at the next class meeting.
- *Students with Disabilities:* If you have special needs because of learning, physical or other disability, please contact Disability Support Resources (DSR) at 616.331.2490. Furthermore, if you have a disability and think you will need assistance evacuating this classroom and/or building in an emergency situation, please make me aware so I can develop a plan to assist you. Please note that students taking exams with DSR must make arrangements approximately two weeks prior to each exam! Please be sure to complete all required paperwork well in advance of the deadline. <http://www.gvsu.edu/dsr/>
- *Academic Support Centre:* Students interested in additional support for time management, writing, study or examination skills should contact the Advising Resource Centre (200 STU). You are also encouraged to contact Psi Chi to ask for a tutor who has experience with this course! I've recommended several excellent students as tutors for this course and am confident that working with any of these tutors would be beneficial.
- *Commitment to Inclusion & Equity and University Anti-Harassment / Non-Discrimination:* Every student must demonstrate respect for each other. I am committed to eliminating discrimination, harassment, bullying, or victimization of any kind. Any student participating in, or condoning harassment or discrimination will be asked to leave. As adopted by the Board of Trustees, in Administrative Manual Chapter 1, Grand Valley State University is committed to inclusion and equity, and strives to establish a climate that welcomes and affirms the contributions of all students and employees. The University is guided by values for inclusiveness and community, which are integral to our mission to educate students to shape their lives, their professions, and their societies, and to enrich the community through excellent teaching, active scholarship, and public service. The University strives to provide all members of its community an inclusive environment and equitable opportunities for success. <http://www.gvsu.edu/affirmativeactionstatement.htm> <http://www.gvsu.edu/titleix/>
- *Bias Incidents or Harassment:* It's important to report all bias incidents--even those intended as jokes. Go to https://gvsu-advocate.symplicity.com/public_report/index.php to report bias incidents or for more information. You can also contact the Dean of Students office at 616-331-3585.

HOW TO BE SUCCESSFUL IN PSY435

Important Note: GVSU specifies that for a 3 credit-hour class, students should anticipate spending 9 hours of time outside of class devoted to that topic.

- 1- BEFORE CLASS: Success in this course requires a substantial amount of work on your own (or with your group) to familiarize yourself with the topic **before** it's covered in class. This partially "flipped" model allows us to devote in-class time to filling in the gaps of understanding at a deeper level.
 - a. Directed Reading
 - i. Use the PPT slides as your reading guide BEFORE class
 - ii. Take notes from Carlson / NSO / Khan academy around the figures in the PPT
 - iii. Be sure to define all vocab terms. (now is a good time to start making flash cards)
 - b. Watch Videos
 - i. Many topics now have Flandreau light board or narrated PPT videos. **The pace of our in-class discussion is based on the expectation that students have watched the videos.**
 - ii. Khan academy videos also help
 - c. Test Yourself
 - i. Do online quizzes
 - ii. Once you've read the material and taken notes on the PPT, take the online quiz.
- 2- DURING CLASS: Come to class and participate as much as possible
 - a. Take Notes:
 - i. Studies have consistently shown that actively taking notes in class improves learning
 - ii. Make sure you have plenty of paper. I write on the board a lot. Some students find it helpful to have different colored pens or pencils for note-taking.
 - iii. If you miss class, get notes from a friend ASAP
 - b. Stay Present:
 - i. PUT AWAY THE CELL PHONE. Studies have shown that simply the presence of a cell phone can be distracting.
 - ii. Participate (in class AND online): Peer-Instruction is an evidence-based form of instruction shown to improve comprehension. It is a get-out-of-it-what-you-put-in kind of strategy!
 - c. Engage: really work to answer the peer instruction questions on your own in your head before discussing with your group. Each time you generate an answer on your own, you strengthen those neural connections!
- 3- AFTER CLASS:
 - a. Comprehension:
 - i. Go through your notes after class, write down questions / points of confusion.
 - ii. Post your questions to the DB and / or ask your peers / visit office hours.
 - b. Memorization:
 - i. Make flash cards for vocabulary words: Psychology can seem like a foreign language, the only way to be successful is to learn to speak it!
 - ii. Goal = able to explain each learning objective to a friend (or relative or pet) without referencing your notes.
 - c. Visit me: I'd love to see as many of you as possible as often as possible

TEST TAKING STRATEGIES

- 1- Study! Knowing the material will go a long way towards boosting confidence and confidence is a great weapon against exam anxiety.
- 2- Follow instructions: Most exams have some choice; be sure you answer all the required questions and clearly indicate which question(s) you do NOT want graded
- 3- Multiple Choice- (where applicable)
 - a. Answer easy questions first, medium questions second, and “hard” questions last. This strategy serves 2 purposes:
 - i. If you run out of time it’s best to leave blank questions you didn’t know anyway.
 - ii. It can help with confidence, a great weapon against anxiety.
 - b. Answer multiple-choice questions on the exam itself; fill in the bubble sheet at the end. This strategy also serves a few purposes
 - i. If you skip questions your first time through you don’t want to mess up the bubble-sheet
 - ii. Make sure you review all your answers before submitting
 - iii. If there’s a problem with your scantron I have your answers on another form.
- 4- Short Answer-
 - a. **Answer the question, the whole question, and nothing but the question**
 - i. *Answer the question:* Make sure you understand the question, ask me if you’re unsure.
 - ii. *The whole question:* Some questions have multiple components. Bullet points can help to make sure you hit them all. In the review sessions we often gloss over details. If the question specifies “in as much detail as possible” don’t skip any steps.
 - iii. *Nothing but the question:* Look for the “start” and “stop” points
 - b. Be legible- it can only be graded if the grader can read it ☺

A great resource on how to write answers to essay questions on exams;

<http://www.oxcoll.com/tew/exam-writing/how-to-write-in-an-exam.html>

“So you have carefully read the question now the next big task is to actually answer it. Sounds obvious? You would think so wouldn’t you... However, even at degree level one of the most common mistakes is to not answer the question. It is also a mistake that can cost a lot of marks. Let’s consider an example from physics

- **State and explain using an example Newton’s third law. [8 marks]**

If you think you know this and proudly write down “**to every action there is an equal and opposite reaction**” you will be lucky to get 2 out of the 8 marks. Your answer fails to explain using an example – which is probably worth half of the marks. Your statement of the law is the GCSE version and excludes two important features (the action and reaction have to be the same type of force and acting on different bodies) and the “opposite” bit should really be “opposite and along the same line of action”. The example bit really requires a diagram.”

PSY 435 SCHEDULE PART 1

Wk	Day	Date	Carlson	NSO	Topic	Attend	Due on BB 11:59pm
1	M	1/7/19					
	Tu	1/8/19	2	Intro; Section 1, Chpt 8	Intro, CellNeuro		<i>Group preferences quiz</i>
	W	1/9/19					AP video
	Th	1/10/19	2	Section 1, chpt 2, 3, 5	Resting Vm, Action Potential	Neuro Myth	
	F	1/11/19			100% refund deadline		Syllabus Quz <i>Pre-test (EC)</i>
2	M	1/14/19					Q1- Vm, AP
	Tu	1/15/19	2	Section 1, chpt 2, 3, 5	AP	Team Contract	
	W	1/16/19					Synaptic Transmission Video Q2- Synaptic Transmission
	Th	1/17/19	2	Section 1, chpt 4, 5, 6	Synaptic Transmission		
	F	1/18/19					
3	M	1/21/19					Neuroanatomy Videos Q3- Neuroanatomy Psychopharmacology Videos Q4- Psychopharmacology
	Tu	1/22/19	2, 4	Section 2, chpt 1	Neuroanatomy & Pharmacology		
	W	1/23/19					NT videos Q5- NT & NP
	Th	1/24/19	4	Section 1, chpt 11, 12, 13, 14	NTs & Neuropeptides		
	F	1/25/19					
	M	1/28/19					Carlson Chpt 5 Videos Q6- Research
	Tu	1/29/19	5		Research in Neuroscience		
4	W	1/30/19					<i>Q7- Article</i>
	Th	1/31/19	5		Research in Neuroscience	Disco	
	F	2/1/19					H1, DB1
	M	2/4/19					
5	Tu	2/5/19			Catch up / Review	Project Intro	
	W	2/6/19					
	Th	2/7/19					EXAM 1
	F	2/8/19					

PSY 435 SCHEDULE PART 2

Wk	Day	Date	Carlson	NSO	Topic	Attend	Due on BB 11:59pm
6	M	2/11/19					Carlson Chpt12 Videos
							Q8- Eating & Drinking
	Tu	2/12/19	12	Section 4 Chpt 1, 2, 4	Eating & Drinking		
	W	2/13/19					
	Th	2/14/19	12	Section 4, Chpt 1, 2, 4	Eating & Drinking		
	F	2/15/19					Project Article Submitted
7	M	2/18/19					Synaptic Plasticity Videos
							Q9- Synaptic Plasticity
	Tu	2/19/19	13	Section 1 Chpt 7	Synaptic Plasticity		
	W	2/20/19					Q10- L&M
	Th	2/21/19	13	Section 4, chpt 5, 7	Learning & Memory		
	F	2/22/19					
8	M	2/25/19					Q11- Plasticity / L&M Article
	Tu	2/26/19	13		Plasticity/ L& M Primary Lit.	Disco	
	W	2/27/19					Q12- Language
	Th	2/28/19	14	Section 4, Chpt 8	Language (not aphasia)		
	F	3/1/19					Project article resubmit; DB2
9	M	3/4/19			SPRING BREAK		
	Tu	3/5/19					
	W	3/6/19					
	Th	3/7/19					
	F	3/8/19					
10	M	3/11/19					
	Tu	3/12/19			Catch up / Review	Project update	
	W	3/13/19					
	Th	3/14/19			EXAM 2		
	F	3/15/19					

PSY 435 SCHEDULE PART 3

	Day	Date	Carlson	NSO	Topic	Attend	Due on BB 11:59pm
11	M	3/18/19					Q13- Tumors, Seizures, Strokes
	Tu	3/19/19	15		Tumors, Seizures, Strokes		
	W	3/20/19					
	Th	3/21/19	15		Tumors, Seizures, Strokes		
	F	3/22/19					<i>Project Outline Due</i>
12	M	3/25/19					Q14- Neuro Article
	Tu	3/26/19	15		Neuro Research Article	Disco	
	W	3/27/19					Q16- Anxiety Disorders
	Th	3/28/19	17	Section , Chpt 5, 6	Anxiety Disorders		
	F	3/29/19					<i>Outline Resubmit (if needed)</i>
13	M	4/1/19					Q17- Anxiety Disorder Article
	Tu	4/2/19	17		Anxiety Disorder Primary Lit	Disco	
	W	4/3/19					
	Th	4/4/19			Catch up / Review	Project update	
	F	4/5/19					DB3
14	M	4/8/19					
	Tu	4/9/19	EXAM 3				
	W	4/10/19					
	Th	4/11/19			Peer Review Written Article	Draft	
	F	4/12/19					
15	M	4/15/19			No class sessions this week; required 30min team meetings with Flandreau		
	Tu	4/16/19					
	W	4/17/19					
	Th	4/18/19					
	F	4/19/19					<i>Project Written Portion Due</i>
16	M	4/22/19					<i>PPT uploaded</i>
	T	4/23/19	4:00pm-5:50pm	PPT Presentations			
				Attentiveness Required			
				Group Evaluation Form due			