

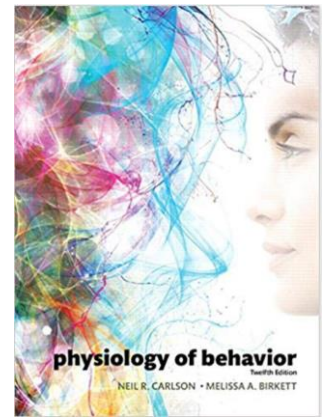
Contact Info: Dr. Elizabeth I. Flandreau; flandree@gvsu.edu
 2129 Au Sable Hall (ASH)
 Office Hours: 10am-12pm Mondays & by Appointment

Final Exam: Thursday 4/23/20 8am – 9:50am Team PPT Presentations

Required Reading:

1. Carlson Physiology of Behavior 12th Edition*
 (<https://www.amazon.com/Physiology-Behavior-Books-Carte-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

About the instructor: Dr. Flandreau has a BA in biology from Lawrence University in Wisconsin and a PhD in neuroscience from Emory University in Atlanta. She worked as a postdoctoral fellow at the Salk Institute and UCSD prior to joining the Psychology Department at GVSU in January of 2015. Her research examines interactions between stress and diet on behavioral, endocrine, and gene-expression outcomes in rodents. Dr. Flandreau is passionate about evidence-based everything including research, teaching, mentoring, and parenting. Her complete list of published works can be found here: <http://www.ncbi.nlm.nih.gov/sites/myncbi/16yhpycv5JeQW/bibliography/49569051/public/?sort=date&direction=ascending>

PSY435 GRADING

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

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.

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.
	Project Instructions Quiz	4	1	4	0.80	The project accounts for a substantial proportion of the grade, it is important that each individual understands the expectations.
	Online "reading" quizzes	5	15	75	15.00	These quizzes ensure that students are prepared to discuss complex content in class. Currently 17 quizzes on the schedule.
Contribution	Team Project	N/A	N/A	20	4.00	Students attend all team meetings, arrive to meetings prepared, communicate effectively and efficiently, and provide meaningful contribution to the content and quality of the project
	In Class & Online Discussion Board	2	21	42	8.40	Students arrive on time, prepared for class by having reviewed PPT and watched videos, and contribute to the conversation in small and large groups; up to 25% missed attendance days can be "made up" by online participation on the discussion board (see syllabus).
Team Project	Team Survey and Contract	0	2	0	0.00	Grade included in contribution to team
	Written Steps 1-5	9	1	9	1.80	See project instructions file for details
	Written Step 6 (FINAL)	50	1	50	10.00	Grade may also vary based on self, peer and instructor evaluation of contribution to team.
	Presentation	25	1	25	5.00	
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	

DESCRIPTION OF GRADED ITEMS

ONLINE QUIZZES

- *Syllabus quiz*: The syllabus is an important document and success in this course necessitates understanding the requirements.
- *Project Instruction Quiz*: The team project accounts for 20% of your grade for this course. It is essential that each individual understands the project instructions.
- *Reading Quizzes*: This course takes a somewhat ‘flipped’ approach. Students are expected to arrive at class already familiar with the material for that day. The reading quizzes are online open note quizzes designed to ensure that all students are prepared to dive deeper into the material during our time together in class.
- You can take each quiz twice and BB will keep the higher of the two scores. Answers will be available after the quiz deadline.

PARTICIPATION: Due to the “flipped” nature of the class, attendance is **REQUIRED**. *You do not need to inform the instructor about missed attendance, for up to 25% of missed days, you can participate online using the discussion board.* **Participation grading is based on the following:**

- In General: Student watched videos and reviewed PPT slides before class
- In Person (75-100% of classes, n = 16-21)
 - On-time arrival
 - Active, consistent engagement
 - Meaningful participation to whole-class and small group activities
- Online (0-25% of classes, n = 0-5)
 - For each missed day you must ask at least one question *that has not yet been asked*
 - For each missed day you must also *answer at least one question with the correct answer AND cite your source* (e.g. syllabus, Carlson, NSO) so that other people can find where you got the information.
 - See calendar for DB deadlines to get credit for any missed days during each of the three ‘parts’ of the course
- The ‘in class peer review’ day for the team project will be treated like an exam day. Chat with the instructor ASAP if you have a planned absence that day.

EXAMS

- **All exams are (semi) cumulative because the material builds on itself across the semester.**
- If you have a planned absence on a day when an exam is scheduled, you may take the exam prior to the scheduled day.
- If you have an unplanned absence on an exam day, you must take the exam within one week of the originally scheduled date. Make up exams may be a different format than the in-class exam (e.g. Take-home essay, in-class multiple choice, or in-office verbal exam). The ‘in class peer review’ day for the team project will be treated like an exam day. Chat with the instructor ASAP if you have a planned absence that day.
- Exams ask you to integrate information across topics. Success requires a deep understanding of the material.

IMPORTANT NOTE: *If you are unable to physically attend 16 class periods plus exam days this semester, you will need to work with Dr. Flandreau, DSR, or other relevant GVSU entity to come up with an alternative arrangement. It is your responsibility to initiate this process.*

TEAM PROJECT:

By the time information finds itself in a textbook, it is already old. Over the course of this project students will work in teams to translate the complex information in a primary research article into “own-voice” language that is more accessible to the team and their peers. At the end of the semester, each team will give a presentation with the goal of teaching their topic to the rest of the class.

- *Team Preferences Survey*- Instructor will assign teams based on self-reported availability to meet outside of class. If possible, topic preference will also be considered. On-time completion required for credit.
- *Team Contract*- Each team will develop a contract to set clear expectations for what it means to be successful on that team. Each student and the instructor will receive a copy of the contract and revisit it to ensure everyone is on the same page. On-time completion required for credit.
- *Written Assignment* (See separate file for full instructions and grading criteria for each of the stages of the paper). Paper will include the following sections
 - *Cover page*
 - *Introduction*
 - *Methods*
 - *Results*
 - *Discussion*
 - *References*
 - *Appendix (Figures and Captions)*
- *Presentation* (See separate file for full instructions and grading criteria)
 - During our final exam time slot, each team will give a 10-minute presentation (+/- 30 seconds) + 4 min Q and A with the goal of TEACHING the class about the information in their article.
 - Grading is based on how effectively students conveyed the information, linked to in-class material, and how well the audience understood the information provided.

PSY435 POLICIES

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

- **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.
- **Attendance:** Attendance is required (see ‘contribution’ grading criteria). Although 25% of absences can be ‘made up’ through online contribution, you are still responsible for all announcements and information presented in class.
- **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
- **Cell Phone Policy:** Studies show that even having a cell phone visible is a distraction! I typically have my phone accessible but not visible so that I can be available in case of an urgent call about a family member. I ask that students also keep their phones put away. If there is an urgent matter, please step into the hallway to text / call.

- *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. If BB is acting up, please contact BB admin ASAP and cc me on the email.
- *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.
- *Flandreau Commitment to Good Citizenship*: It is not your responsibility to make sure anyone else is successful in the class. However, it IS your responsibility to make sure that your words, actions, or lack of action is not detracting from anyone's ability to achieve their full potential. You can demonstrate respect for your peers by, for example, leaving quietly if you finish an exam early, engaging in meaningful conversation in class discussions with all students, and having an open mind to avoid judging others.

SCHEDULE

Please note that, while I will do everything in my power to stay on track, the schedule may change with unforeseen circumstances (e.g. snowpocalypse). Students are responsible for making themselves aware of in-class and online announcements regarding any changes to the schedule. If a schedule change impacts your ability to attend required classes, please review the attendance policy and meet with the instructor to resolve the conflict(s).

PSY 435 SCHEDULE PART 1

	Reading	Day	Date	Due on BB 11:59pm	Topic / Activity
1	Carlson Chpt 2 (NSO Section 1 Intro, Chpt 8)	M	1/6/20		
		Tu	1/7/20		Intro, Cell Neuro
		W	1/8/20	AP Video	
		Th	1/9/20		Resting Vm, AP
		F	1/10/20	Syllabus Quiz; Pre-Test	
2	Carlson Chpt 2 (NSO Section 1 Intro, Chpt 2, 3, 5)	M	1/13/20	AP Video Q1- Cell Neuro, Vm, AP	
		Tu	1/14/20		Action Potential
		W	1/15/20	Watch Synapses Video Q2- Synaptic Transmission	
		Th	1/16/20		Synaptic Transmission
		F	1/17/20		
3	Carlson Chpt 2 (NSO Section 1 Intro, Chpt 3, 5, 6)	M	1/20/20	Neuroanatomy Videos Q3- Neuroanatomy Psychopharmacology Videos Q4- Psychopharmacology	
		Tu	1/21/20		Neuroanatomy & Psychopharmacology
		W	1/22/20	NT videos Q5- NT & NP	
		Th	1/23/20		Neurotransmitters
		F	1/24/20		
4	Carlson Chapter 5; Assigned Research Article on BB	M	1/27/20	Carlson Chpt 5 Videos Q6- Research Methods	
		T	1/28/20		Research in Neuroscience
		W	1/29/20	Q7- Article	
		T	1/30/20		Research in Neuroscience
		F	1/31/20	Discussion Board 1 Group Preferences Survey	
		Tu	2/4/20		REVIEW #1 (introduce teams)
		W	2/5/20		
		Th	2/6/20		EXAM #1
		F	2/7/20		

PSY 435 SCHEDULE PART 2

	Reading	Day	Date	Due on BB 11:59pm	Topic / Activity
6	Carlson Chpt 12 (NSO Section 4, Chpt 1, 2, 4)	M	2/10/20	Carlson Chpt 12 Videos Q8 Eating and drinking	
		Tu	2/11/20		Drinking
		W	2/12/20		
		Th	2/13/20		Eating
		F	2/14/20	Project Step #1 Deadline Team Contract Deadline	
7	Carlson Chpt 13 (NSO Section 1 Chpt 7)	M	2/17/20	Synaptic plasticity videos Q9- Synaptic plasticity	
		Tu	2/18/20		Synaptic Plasticity
		W	2/19/20	Q10- Learning and memory	
		Th	2/20/20		learning & memory
		F	2/21/20	Project Step #2 Deadline	
8	Article posted on BB	M	2/24/20	Q11- Primary research article	
		Tu	2/25/20		Primary literature discussion
	Carlson Chpt 14; NSO Section 4 Chpt 8	W	2/26/20	Q12- Dylexia and Dysgraphia	
		Th	2/27/20		Dyslexia and Dysgraphia
		F	2/28/20	Discussion Board 2 Mid Semester Feedback	<i>(Don't forget about project)</i>
9		M	3/2/20	SPRING BREAK	
		F	3/8/20		
10		M	3/9/20		
		Tu	3/10/20	REVIEW #2	
		W	3/11/20		
		Th	3/12/20	EXAM #2	
		F	3/13/20	<i>(Work with team on written project outline)</i>	

PSY 435 SCHEDULE PART 3

	Reading	Day	Date	Due on BB 11:59pm	Topic / Activity	
11	Carlson Chapter 15	M	3/16/20	Q14- AD		
		Tu	3/17/20		Alzheimer's Disease	
		W	3/18/20	Q15- Primary Literature		
		Th	3/19/20		Degenerative diseases article	
		F	3/20/20	Project Step #3 Deadline		
12	Carlson Chapter 17	M	3/23/20	Q16- Anxiety Disorders; PTSD		
		Tu	3/24/20		Anxiety Disorders	
		W	3/25/20			
		Th	3/26/20		PTSD	
		F	3/27/20	<i>(Work with team to finalize written project; begin PPT)</i>		
13	Article posted to BB	M	3/30/20	Q17- Primary Literature		
		Tu	3/31/20		Primary Literature Discussion	
			W	4/1/20	DB3 due	
			Th	4/2/20	REVIEW #3	
			F	4/3/20		
14		M	4/6/20			
		Tu	4/7/20	EXAM #3		
		W	4/8/20			
		Th	4/9/20	Project Step # 4 Print and Bring	Peer Review Written Article	
		F	4/10/20			
15		M	4/13/20	Project Step #5 Print and Bring No Class; 30 min team meetings with Flandreau. Schedule a time ASAP to be sure it works for everyone in your team!!!		
		Tu	4/14/20			
		W	4/15/20			
		Th	4/16/20			
		F	4/17/20	LIFT SURVEY; POST TEST; UPLOAD FINAL PAPER (STEP 6)		
		W	4/22/20	Upload PPT		
16		Th	4/23/20	In-Class PPT Presentation	8am – 9:50am	

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.”