

PSY435: Advanced Behavioral Neuroscience

Class Description: This course emphasizes the study of bodily structures, processes, and mechanisms related to various aspects of the organism's interactions with the environment.

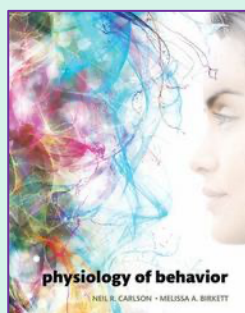
Course Objectives:

- Describe the process of action potential, including how and why they occur
- Explain in detail the steps of neurotransmission
- Identify the behavioral function of major brain chemical systems, explain their role in the healthy brain as well as disorders.
- Critique original research in behavioral neuroscience, identify limitations to current knowledge, integrate information from varying sources into a cohesive whole
- Discuss current topics in behavioral neuroscience research

Course Requirements:

- Prerequisite: PSY 330
- Carlson Physiology of Behavior 12th edition Textbook (We will use this every week). ISBN:0134080912

- [Technology](#)
- [MS Office](#)
- [Zoom](#)
- [Panopto](#)



Class Meeting Times:

435_01: Tue & Thu 11:30am – 12:45pm

435_02: Tue & Thu 1pm – 2:15pm

Most Tuesdays will be team meetings.

Most Thursdays will be whole class meetings. See schedule for additional information.

Exams:

Test 1: Thursday 2/18/21

Test 2: Thursday 4/1/21

Final: Tuesday 4/27/21

- 435_01: 10am – 11:50am

- 435_02: 12pm – 1:50pm

Please be sure you have uninterrupted time and internet for online exams

Instructor: Dr. Elizabeth Flandreau, PhD (she/her) flandree@gvsu.edu

Virtual Office Hours:

[Tues 12 – 2pm](#)

Group Review Sessions Saturdays as determined by class & instructor

About the instructor: Dr. Flandreau has a BA in biology from Lawrence University and a PhD in neuroscience from Emory University. She worked as a postdoctoral fellow at the Salk Institute and UCSD prior to joining GVSU in 2015. Her research examines interactions between stress and diet on behavioral, endocrine, and gene-expression outcomes in rodents.

Dr. Flandreau's [full publication list](#).

Course Structure: Responsibilities

PREPARE

Before Class:

Weekly Modules

- Lecture Videos
- Textbook Reading
- Reading Quiz
- Team Meetings

* Extra Help: Discussion boards

PRACTICE

During Class:

- Q&A with professor
- Group activities to apply your knowledge
- Class discussions

REVIEW

After Class:

- Review & Consolidate
- Complete assignments

* Extra Help: Discussion Boards; Office Hours

Attendance & Contribution are expected and rewarded.

Synchronous class meetings offer new ways to understand the materials through polls, activities, and discussions. Class meetings are designed so that your learning is [an active process](#) to increase knowledge retention. In-class time will also be used to work on team assignments. I am unable to record these meetings. You do **not** need to inform me if you must be absent but should contact your team in advance and request notes. If you are regularly unable to attend zoom meetings, please discuss with instructor

Grading: Final grades are calculated according to the rubric below.

<u>Category</u>	<u>Points</u>	<u>Percent of Total Grade</u>
Skills Quizzes (n = 4)	20	4%
Content Quizzes (n = 9)	50	10%
Mid-Term Tests (n = 2)	75 Each	15% Each
Final Exam	80	16%
Contribution to Class & Team	60	12%
Team Project, Individual Items	40	8%
Team Project, Group Items	100	20%
TOTAL	500 Points	100%

FYI the "Total" column on blackboard does not reflect your official grade & is turned off to avoid confusion. Cut off points for grades are as follows: D = 300; D+ = 335; C- = 350; C = 365; C+ = 385; B- = 400; B = 415; B+ = 435; A- = 450; A = 465.

Resources for Students

Getting Help: I encourage everyone to attend virtual office hours, visit [the student academic success center](#) and seek out a tutor through the [tutoring center](#) or [Psi Chi](#).

Office Hours provide one-on-one access to your instructors and can be used to ask questions about course content, grades, academic and career choices, or just get to know each other a little better as humans.
<https://calendly.com/flandree/flandreau-office-hours>

Library Resources: The GVSU library has additional resources related to understanding and producing scientific writing as well as important information on how to cite sources and avoid plagiarism.
<https://www.gvsu.edu/library/km/>

Official Accommodations: Please work with DSR (<https://www.gvsu.edu/dsr/>) and communicate with me (preferably during the first week of the semester) to make sure your needs are met in this course.

Health, Safety, & Academic Success

We all have different learning preferences and deal with different personal situations, some related to the COVID-19 pandemic and social injustice. Many of us are dealing with childcare, eldercare, or other requirements. No one can reach their greatest academic potential if basic needs are not being met.

Please visit the following sites for information on resources related to access to food, housing, internet and software and mental health.

- <https://www.gvsu.edu/coronavirus/resources-for-students-22.htm>
- <https://www.gvsu.edu/financialaid/financial-hardship-requests-226.htm>
- [University Counseling Center](#)
- <https://www.gvsu.edu/care/>
- <https://www.gvsu.edu/inclusion/remote-services-156.htm>

If there are aspects of this course that prevent you from learning or exclude you, please let me know ASAP so that we can work together.

Resources for Online Learning:

- [Blackboard](#)
- [Zoom](#)
- [Panopto](#)
- Other [GVSU](#) resources

Important GVSU Policies

Expectations of Inclusion:

The purpose of this course is to learn neuroscience. Please treat your classmates and instructors with respect in person, on zoom and in email. In particular, it is unacceptable to judge others by gender, race, or for any other reasons. If you have any concerns, please contact me or the GVSU division of inclusion and equity (616 331-3296)

- Please review GVSU's policy on [Anti-Racism](#) and [Title IX](#)

Expectations of Integrity: Earning a degree from GVSU means you achieved knowledge, skills, and abilities worthy of that degree. Please do not short-change your education through cheating, plagiarizing, or lying. Instructors are required to report incidents of academic integrity violations.

- Please Review GVSU's requirements for academic integrity: <https://www.gvsu.edu/osccr/academic-integrity-14.htm>.

If you have any questions about these expectations, please ask me!

How to meet the integrity standards for GVSU

Make sure you know which resources you're allowed to use

- Resources you can (and should!) use for homework:
 - Your teammates (weekly meetings and discussion boards)
 - Your classmates (online discussion boards)
 - Your textbooks (with proper citations)
 - Your instructor (office hours, discussion board)
- Resources you can (and should!) use for quizzes and exams:
 - Your own personal notes written by you (see "own voice standard" for additional instructions).

Always Cite your sources

- In-Text and end of text citations should be in [APA 7th Edition](#) format and should be used when you've gained ideas, understanding, words, or definitions from a source

If you have questions, ask!

Important Course Policies

To be considered for credit, all assignments must adhere to the following:

1. Filename for Attachments is your name or team number plus the homework title (e.g. FlandreauDefinitions or Team1ArticleSummaries)
2. Attachments must be MS office word or MS office PPT
3. Name / Team names & Team Number should be at the top of all attachments
4. Documents constructed in an easy-to-read format, this leaves room for flexibility but if you prefer more structure, please use APA format.
5. All assignments must be free from plagiarism and must meet the “own voice” standard (described below). Every member of a team is responsible for the integrity of a team assignment please make sure you personally review everything before it is turned in.
6. Scheduling conflicts for meeting homework deadlines must be resolved *before* the deadline.

Flandreau Own Voice Standard: This class requires integrating content across topics and demonstrating knowledge through application. You will be asked to “predict” an outcome or “explain” a process. Correct responses require using vocabulary flexibly and with meaning. To this end, *everything* you submit must be in your own voice. Direct quotations and paraphrasing are incompatible with this standard. Additional info is in the “Start Here” module on BB. Student will have an opportunity for a replacement assignment and grade for a first own-voice violation. Additional submissions that do not meet this standard cannot be considered for credit.

How to meet the “Own Voice” Standard:

- Take careful notes: identify the source of the notes at the top of the page (e.g. Carlson, NSO, Wikipedia); do not copy down words or phrases directly from the source.
- Do not use notes while you craft your answers. Being able to speak from memory is a great way to demonstrate to yourself that you’ve mastered the content and are using your own voice.
- Read your answers aloud. Does it sound like something you would say? Do you understand every word you’ve written? If not, you likely haven’t mastered the content and don’t meet the standard.
- Google your answers: Does something come up that looks similar to what you (or a teammate) have written? If so, you likely haven’t answered the question correctly and not met the standard.
- Ask Questions: Are you unsure what a question is asking? Unclear about how to approach the topic? Use the “Clarification Questions” discussion board. Is the topic perplexing to you? Use the “Content Questions” discussion board. Is the discussion board not helping? Make an office hours appointment with Flandreau!

Part 1: Course Schedule

Detailed module requirements including reading guides and individual and team assessments are found in the weekly modules on BB.

WEEK & TOPIC	DATE	DAY	ZOOM Meeting	Deadlines
Week 1: Syllabus, Technology Requirements, Secrets to success, Neuro Hit or Myth, Working in teams	1/18/21	Monday		<i>Begin Week 1 Module</i>
	1/19/21	Tuesday	Week 1 Module	
	1/20/21	Wednesday		Optional, EC Pre-Test
	1/21/21	Thursday	Week 1 Module & CATME	
	1/23/21	Saturday		Week 1 Module: Syllabus Video + Quiz A; Team work video + Quiz B
Week 2: Neuroanatomy	1/25/21	Monday		
	1/26/21	Tuesday	No Class- work on Week 2 module	
	1/27/21	Wednesday		Week 2 Module: Neuroanatomy videos & Quiz 1 Project: CATME survey final deadline (individual)
	1/28/21	Thursday	Neuroanatomy	
	1/30/21	Saturday		
Week 3: Communication within & between neurons	2/1/21	Monday		<i>Begin Week 3 Module</i>
	2/2/21	Tuesday	Meet your team Communication within neurons	
	2/3/21	Wednesday		Week 3 Module: Communication within neurons videos & Quiz 2; Communication between neurons videos & Quiz 3
	2/4/21	Thursday	Communication between neurons	
	2/6/21	Saturday		
Week 4: Psychopharmacology & Neurotransmitters	2/8/21	Monday		<i>Begin Week 4 Module</i>
	2/9/21	Tuesday	Team Meeting- Team Contract & Article Selection	
	2/10/21	Wednesday		Week 4 Module: Psychopharmacology video & Quiz 4; Neurotransmitters videos & Quiz 5
	2/11/21	Thursday	Psychopharmacology & NTs	
	2/13/21	Saturday		Optional Review Session
Week 5: Test 1	2/15/21	Monday		<i>Study for Progress Test 1</i>
	2/16/21	Tuesday	Team meeting- article vocab terms & definitions + additional sources	
	2/17/21	Wednesday		Project: Team Contract (team) & Article Selection (team) <i>Optional Quiz Re-take Due</i>
	2/18/21	Thursday	Test 1	
	2/20/21	Saturday		

Part 2: Course Schedule

Detailed module requirements including reading guides and individual and team assessments are found in the weekly modules on BB.

WEEK & TOPIC	DATE	DAY	ZOOM Meeting	DUE
Week 6: Teams & Projects	2/22/21	Monday		<i>Begin Week 6 Module</i>
	2/23/21	Tuesday	Team Meetings: definitions & additional sources	
	2/24/21	Wednesday		Week 6 Module: Project Instructions Video & Quiz C; Own Voice Videos & Quiz D Article Terms & Definitions Due (Individual)
	2/25/21	Thursday	Example mini-lecture	
	2/27/21	Saturday		
Week 7: Ingestive Behavior	3/1/21	Monday		<i>Begin Week 7 Module</i>
	3/2/21	Tuesday	Whole class meeting: Literature Searches & Additional Sources	
	3/3/21	Wednesday		Week 7 Module: Thirst Videos, Hunger Videos, Quiz 5 Project: Additional sources due (Individual)
	3/4/21	Thursday	Ingestive behavior	
	3/6/21	Saturday		
Week 8: Human Communication Disorders Please note modified schedule this week	3/8/21	Monday		Week 8 Module: Human communication reading; Aphasia Videos; Dyslexia & Dysgraphia Videos
	3/9/21	Tuesday	Team Meetings: Own voice article summaries	
	3/10/21	Wednesday	GVSU-designated "break day". Please do the reading and watch the videos before class, but the quiz deadline is extended to Saturday. Own Voice Article Summaries also due Saturday at the	
	3/11/21	Thursday	Human Communication	
	3/13/21	Saturday		Quiz 6 Project: Own voice article summaries due (Team) <i>Optional, EC Mid Semester Feedback</i>
Week 9: Primary Research; Animal Models	3/15/21	Monday		<i>Begin Week 9 Module</i>
	3/16/21	Tuesday	Work on written figure explanation	
	3/17/21	Wednesday		Week 9 Module: Read primary research article; Quiz 7 Project: Written figure explanation due (individual)
	3/18/21	Thursday	Primary research article; how to PPT; animal models	
	3/20/21	Saturday		
Week 10: Stress & PTSD	3/22/21	Monday		<i>Begin Week 10 Module</i>
	3/23/21	Tuesday	Team Meetings: Create PPT	
	3/24/21	Wednesday		Week 10 Module: PNE & PNI & PTSD Videos; Quiz 8
	3/25/21	Thursday	Stress & PTSD	
	3/27/21	Saturday		<i>Optional Review Session</i>
Week 11: Test 2	3/29/21	Monday		<i>Study for Test 2; working with teams on PPT slides</i> <i>Optional Quiz Re-take Due</i> <i>Continue</i>
	3/30/21	Tuesday	Test 2	Sign up for meeting time for next week
	3/31/21	Wednesday		
	4/1/21	Thursday	No class; mini break	<i>Optional take test 2 this day instead</i>
	4/3/21	Saturday		

Part 3: Course Schedule

Detailed module requirements including reading guides and individual and team assessments are found in the weekly modules on BB.

WEEK & TOPIC	DATE	DAY	ZOOM Meeting	DUE
Week 12: PPT Draft & Meetings with Instructor	4/5/21	Monday	<i>Continue working on mini-lecture</i>	PPT Draft Due
	4/6/21	Tuesday	No Class; 30 min team meetings with Flandreau	
	4/7/21	Wednesday		
	4/8/21	Thursday		
	4/10/21	Saturday		
Week 13: Complete Mini-Lectures & TBD topic	4/12/21	Monday		<i>Continue working on mini-lecture</i>
	4/13/21	Tuesday	Team Meetings: Finish PPT	
	4/14/21	Wednesday		Project: Mini-Lecture Due!!!
	4/15/21	Thursday	Guest Lecture???? CATME self and peer evaluation Survey	<i>Start watching other teams' lectures, take notes, identify questions;</i>
	4/17/21	Saturday		
Week 14: Watch Mini-Lectures & TBD Topic	4/19/21	Monday		Required: Watch all team videos before Tuesday's Class. CATME evaluation survey deadline
	4/20/21	Tuesday	Mini-Lecture Q & A (ask and answer peer questions on mini-lecture content)	
	4/21/21	Wednesday		Week 14 Module: Complete "Evaluation" Quizzes & Content Quiz (soft deadline) <i>Optional, EC "Post-Test"</i>
	4/22/21	Thursday	Guest Lecture????	
	4/24/21	Saturday		Hard deadline for evaluation quizzes and content quiz
	Week 15: Final Exam	4/26/21	Monday	Option to take exam today instead; See instructor for details
4/27/21		Tuesday	10am - 11:50am Exam for 435_01	
			12pm - 1:50pm Exam for 435_02	