**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 (*aka biological basis*) of cognition, memory, motivation, emotion, attention, and sensory processes.

**Learning Objectives:** My goal is for each student to learn the structures and functions of neurons and neural systems, as well as skills, strategies, and ways of thinking about neuroscience.

- 1. Identify the structure and function of the major parts of the nervous system at a cellular and systems (functional neuroanatomy) level
- 2. Describe the process of action potentials
- 3. Describe the process of neurotransmission
- 4. Identify the behavioral function of major brain chemical systems
- 5. Discuss basic research in behavioral neuroscience
- 6. Relate biological processes to everyday behavior

### **Required Resources:**

- 1. Prerequisite: PSY 101
- 2. **Textbooks**: I've cut all ties with expensive textbooks! All modules have links to relevant chapters from Open Educational Resource (OER). Most have a PDF chapter cloned, remixed and modified by me from OERs. Why did I do all this remixing? To better tailor chapter content to match the specific learning objectives for our module.
- 3. <u>List of Topics</u>: A comprehensive outline of course content. Previous students find this resource useful to understand categories of content and a helpful reference for vocab terms and acronyms.

#### **Missed Deadline Policy:**

- Online Assignments are typically due at 11:59 pm Fridays with a 48 hr grace period; assignments are not considered late until after 11:59pm on Sundays (final exam is the exception). Most assignments are available in advance and can be turned in early. Submissions beyond the 48hr grace period are not guaranteed a grade or feedback. It's dangerously easy to fall behind in such a short term! If you're struggling, please meet with me ASAP.
- In-Class Activities *may* be made up via online contribution with instructor permission.
- If you have a planned absence on a test day, you must take the test BEFORE you leave. If you have an unexpected absence on a test day, it may be possible to take it outside of class within the same week

**About the Instructor:** Elizabeth Flandreau (she/her) (Please call me Dr. or Professor Flandreau.) I have a BA in Biology from Lawrence University in Appleton, WI and PhD in Neuroscience from Emory University in Atlanta. I did my postdoctoral work in La Jolla, CA at the Salk Institute and UCSD. I live in Allendale with my spouse. I have four daughters ages 13, 8.5, and 4, plus my angel baby, Georgia, who passed away at birth 8/12/2019. We also have a cat, Bayern. When I'm not nerding-out about brains, I enjoy podcasts...about brains, listening to music, and reading books. Complete List of Published Work in MyBibliography

**Email Policy:** Questions relevant to all students must be posted to the discussion board so everyone can benefit from the answer! <u>DEFINITELY EMAIL ME IF...</u> there's a broken link on Bb, something listed on the syllabus is not open on Bb, your question is urgent, or you have a personal matter that can't wait for a 1:1 meeting. I typically respond to emails within 1 business day.

**How I communicate:** Thanks to nature and nurture, my style of communication is more direct than typical for the local culture. Indirect communication comes less naturally to me; I sometimes forget about pleasantries and jump straight into content. I promise to assume you all have the best of intentions in your communications with me and ask you to understand that I absolutely have the best of intentions in my interactions with you.

**Teaching Philosophy**: Learning is not a consequence of teaching; teaching and learning occur in partnership. My role is to create and curate content plus interactive and experiential opportunities. I will help you identify questions, direct you toward the best resources to answer questions, and provide clarifications. Your job is to make good use of the resources and opportunities provided. In class lectures and activities plus formative assessments (practice quizzes and homework) provide stepping stones toward achieving course objectives. You'll demonstrate what you've learned during summative assessments (content quiz, midterms, and final exam).

**Office Hours:** One of the most important resources for any class is the instructor! I am invested in your success and, whether it's 30 seconds or 30 minutes, I enjoy chatting with students outside of class. Please fill out this form to find a time that works for everyone. Office hours meetings are typically held on zoom. Grade-related questions must be addressed in office hours.

# **UNIVERSITY & COURSE POLICIES**

GVSU Expectations of <u>Inclusion</u> and <u>Integrity</u> GVSU Policies: <u>https://www.gvsu.edu/catalog/navigation/academic-policies-and-regulations.htm</u>

The purpose of this course is to learn. Please treat classmates and instructors with respect in face-to-face and online interactions as well as conversations about others. If you have any concerns, please contact me or GVSU (616-331-3296). Earning a degree from GVSU means you achieved knowledge, skills, and abilities worthy of that degree. Please do not short-change your education or compromise your integrity. Instructors are required to report academic integrity violations.

Most violations are not malicious but result from inattention to expectations. To meet standards of integrity and authenticity...

- 1. *Know which resources you're allowed to use:* Resources you can (and should!) use for assignments: Your teammates, classmates, instructor, and readings.
- 2. *Use resources to support your learning, not to avoid learning.* The process of learning IS the purpose.
- 3. Not sure if you can use a resource? Ask!
- 4. *ALWAYS cite your sources:* In-text and end of text citations should be used when you've gained ideas, understanding, words, or definitions from a source (including your teammates!)

Authenticity and the *Own Voice* Standard: This class requires integrating content across topics and demonstrating knowledge through application. *Everything* you produce and submit must be authentically yours and in your <u>own voice</u>. Direct quotations and paraphrasing are incompatible with this standard. Submissions that do not meet this standard cannot be considered for credit. **How to generate authentic content in your own voice:** 

### STEP 1: <u>Understand</u> the assignment and the content

- Many integrity violations occur because students don't understand the material at a deep enough level to explain it without using terms or definitions directly from a source.
- Are you unsure what a question is asking? Unclear about how to approach the topic? Use the discussion board, meet with classmates, meet with Dr. Flandreau.
- *Use reliable resources to build your knowledge* starting with resources that are created and curated by the instructor for this course.
- Take careful notes on a page with the name of the source at the top; do not copy down words or phrases directly

#### STEP 2: Generate and evaluate content

- Avoid using notes while crafting your text. Ability to speak from memory is a great way to demonstrate 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, take a step back, revise, and ask questions.
- As always, be sure to cite the sources that helped you develop the knowledge used in crafting your response.

### Definition of "your own notes"

- One page per module
- Hand written / drawn by you
- Words and phrases are authentically your own crafted based on your understanding of content from course resources.

Generative AI Policy: Written assignments must be *authentically yours*. *Disclosed* use of generative AI in support of understanding content can be compatible with course and university policies. <u>Using AI to avoid learning is not an acceptable use</u>. Written answers that appear inauthentic will not earn full credit. Answers that are obviously not written by the student cannot earn credit.

### AI Use Disclosure: include an appendix at the end of your assignment with the following info

- Specific prompt you gave AI
- Output from AI
- How this output was used.

## **RESOURCES for SUCCESS**

- **1. Time:** One credit hour is defined as 1hr in class time plus 2-3hr outside of class; for a 3-credit class, students should *block out at least 6 hours outside of class* for prepare / practice / and reviewing.
- 2. Technology: Technology Requirements and software through GVSU MS Office, Zoom, Panopto.

- **3. Support**: Please use module content, your instructor, classmates, and other resources within and beyond GVSU to support your learning. I design courses for inclusivity with opportunities for each student to meet all learning objectives. I've curated resources and designed assessments that I believe will guide everyone toward that goal. One of the most important resources for this course is me!!
- **4. Library**: 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. <a href="https://www.gvsu.edu/library/km/">https://www.gvsu.edu/library/km/</a>
- **5.** Official **Accommodations**: Please work with DSR (<a href="https://www.gvsu.edu/dsr/">https://www.gvsu.edu/dsr/</a>) and communicate with me to make sure your needs are met in this course.
- **6. Health, Safety, & Academic Success:** No one can reach their greatest academic potential if basic needs are not being met Please check out these resources if you are experiencing <u>financial hardship</u>, could benefit from a mental health <u>counseling appointment</u> or <u>wellness appointment</u>. The student <u>academic success center</u> also has excellent resources.

# **HOW AM I GRADED?**

It depends... there are two "pathways" through this course (see below).

CDADEC	Percent of Grade		Notes	
GRADES	Independent Collaborative			
		4.0	"Are you ready" quiz; Graded based on thoughtful completion	
Contribution			Reflection surveys; Graded based on thoughtful completion	
to the Class	4.0		Effort toward meeting course objectives; <i>in-class and online</i> conversation, self evaluation, instructor observations, and LMS statistics. Regular attendance is a necessary but not sufficient demonstration of effort.	
Practice Quiz (n = 22 total)	4.0	4.0	Graded based on thoughtful completion and reflection. You can miss up to 5 with no grade penalty. Can earn EC for completing all.	
Homework 1-4	4.0	4.0	Graded based on content and completion: correct, complete, clear, authentic.  Cannot earn credit beyond the 48hr grace period.	
Content Quiz 1	14	12	Graded based on content and completion: correct, complete, clear, authentic. Timed, proctored, small test.	
Contribution to team	N/A	5.0	Team Assignment Survey; Team Eval Surveys 1-2; Contribution (based on self and peer evaluation plus instructor observations)	
Test 1	22	22		
Test 2	22 22		Written answers / drawings, each test is necessarily cumulative. <i>A high test 3 score can replace a low midterm grade</i> .	
Test 3	30	27	seed to the seed of the seed o	

Grading Scale: A: 93 A-: 90 - 92.99 B+: 87 - 89.99 B: 83 - 86.99 B-: 80-82.99 C+: 77 - 79.99 C: 73 - 76.99 C-: 70 - 72.99 D+: 67-69.99 D: 60 - 66.99

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.

### THE COLLABORATIVE PATHWAY

Choose if you can attend weekly meetings with a team for studying, practice quizzes, homework assignments. *My recommended strategy for success:* 

### Prepare: Start each module

- 1. Skim the learning objectives to get a sense of the topic
- 2. "Attend Lecture" watch the lecture videos posted to BB. Take notes as if these were F2F lectures. Identify vocab words and areas of confusion
- 3. Additional resources: use the reading, discussion board, and / or team to work to better understand the vocabulary and get answers to those areas of confusion

### Practice: Meet with your team

- 1. Identify topics that still feel confusing or areas where you don't have enough information
- 2. Revisit course material (lecture videos, reading, discussion board, office hours, team) to fill in the gaps you've identified

### **Review: Complete each module**

- 1. Work to memorize vocab terms and generate ~ 1 page "cheat sheet" for easy reference
- 2. Look for connections across modules and topics; create scaffolded notes to literally see these connections and cause / effect relationships.
- 3. Work collaboratively with your team to complete homework assignments.

### THE INDEPENDENT PATHWAY

Choose if you cannot actively contribute to weekly meetings with a team, *or* do not want to complete assignments collaboratively. My recommendation for success:

### Prepare: Start each module

- 1. Skim the learning objectives to get a sense of the topic
- 2. "Attend Lecture" (this means watch the lecture videos posted to BB for online class). Take notes as if these were F2F lectures. Identify vocab words and areas of confusion
- 3. Additional resources: use the reading, discussion board, and / or team to work to better understand the vocabulary and get answers to those areas of confusion

#### **Practice:**

- 1. Answer "topic specific learning objectives" as if they are essay questions and flesh out outlines
- 2. Continue identifying areas of confusion and using additional resources (class meetings, discussion boards, and office hours!) to address questions

#### **Review: Complete each module**

- 1. Identify connections between the weekly module(s) and previous modules.
- 2. Once you feel comfortable with content, complete the homework assignment.

### DESCRIPTION OF GRADED ITEMS

**Practice Quizzes + Reflection Questions:** Untimed, graded based on on-time thoughtful completion. Designed to gauge your own progress towards meeting learning objectives. Acceptable resources for practice quizzes: your own notes, your team (collab path; include all team member names in the google form; each individual will need to answer the reflection questions in Bb to get full credit).

**Homework:** Untimed, graded based on content (correct, complete, clear). Designed to help draw connections across topics and evaluate understanding. Resources you can (and should) use: **your own notes**, your teammates (required for collab path). Avoid: generative AI, or words, phrases or definitions that are not authentically your own voice.

**In-ClassContent Quiz:** Written questions testing the "understanding" and "remembering" levels of knowledge. Basically a small test.

**In Class Tests:** Written questions applying course content in new ways (think alien neurons and brains) and connecting topics across multiple modules. Additional instructions on Bb ULTRA.

### Assessments that *only* apply to students in the collaborative pathway

- 1. Team Assignment Survey: Grading = on-time, thoughtful completion
- 2. Team Evaluation Surveys (2): Grading = on-time, thoughtful completion
- 3. Contribution to team: Grading based on statistics provided by LMS and Panopto, self and peer evaluations, instructor observations.

# **PSY330 COURSE SCHEDULE**

I try my best to avoid changes to the schedule, especially required and test dates. If unforeseen circumstances arise, some changes may be necessary. It will be important to receive in-class and online announcements to stay on top of any modifications to the schedule. If you are unable to attend a class meeting, please get notes from a friend.

### Final Exam Info

Section	Normal Class Time	Location	Exam Day	Exam Time
330-03	8:30 AM	LOH 178	Thursday	<mark>8am</mark> - 9:50am
330-01	10:00 AM	LSH 174	Thursday	10am - 11:50am

Do you have a bunch of exams on the same day? Can't fathom starting a test at 8am?

Or just want exam week to end earlier so you can go live your lives outside of the classroom?

I'm more than happy to make arrangements for a Monday or Tuesday exam option (gives me more time to grade everything!) Let me know if you're interested!

# Part 1

Week	Day	Date	MODULE	PREPARE (Before Class)	DUE 11:59pm Friday	COLLAB ONLY	
1	Tues	Aug 26	START HERE	Review syllabus, schedule, list of topics	Are you Ready "Quiz"		
1	Thurs	Aug 28	Neuron Structure & Function	Resources for Objectives 1-3; 4-6	Practice Quiz: Own Voice		
2	Tues	Sept 2	Neuron Structure & Function Com within a neuron	Objectives 7-9 and 10-12 LO 1-5 Changes in Vm	Practice Quiz 1-3	Team Assignment	
2	Thurs	Sept 4	Communication within a neuron	Objectives 1-5; 6-12	Practice Quiz 4&5 Homework 1	Assignment Survey	
3	Tues	Sept 9	Communication within a neuron	Objectives 6-12; 13-16			
3	Thurs	Sept 11	Attendance Required	Catch up / Review	Content Quiz (TIMED and proctored)		
4	Tues	Sept 16	Communication between	Objectives 1-6	Practice Quiz 6	Team Contract	
4	Thurs	Sept 18	neurons	Objectives 7 - 10	Practice Quiz 7	(with team)	
5	Tues	Sept 23	Neuroanatomy	Objectives 1-3; 4-7	Practice Quiz 8 & 9	(with team)	
	Thurs	Sept 25	rectioanatomy	Objectives 8-11	Homework 2	(with team)	
6	Tues	Sept 30	Attendance Required	Catch up / Review			
	Thurs	Oct 2		TEST 1			

# Part 2

Week	Day	Date	MODULE	Before Class	DUE 11:59pm Friday	COLLAB ONLY
	Tues	Oct 7	Sensory Systems: Overview	All Objectives	Practice Quiz 10	(with team)
7	Thurs	Oct 9	Sensory Systems: Vision	Objectives 1&2	Practice Quiz 11; Mid-Semester Survey	Mid-Semester Self/Team Eval
	Tues	Oct 14	Sensory Systems: Vision	Objectives 3-5	Practice Quiz 12	(with team)
8	Thurs	Oct 16	Attendance Required	Mid-Semester & Test 1 Feedback		
9	Tues	Oct 21	No class; fall break			
9	Thurs	Oct 23	Sensory Systems: Auditory	Objectives 1-3; 4	Practice Quiz 13	(with team)
	Tues	Oct 28	Sensory Systems: Auditory	Objectives 5&6	Practice Quiz 14	(with team)
10	Thurs	Oct 30	Sensory Systems: Central Processing	All Objectives	Practice Quiz 15; Homework 3	(with team)
11	Tues	Nov 4	Attendance Required	Catch up / Review 2		

	Thurs	Nov 6		TEST 2		
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# Part 3

Week	Day	Date	MODULE	Before Class	DUE 11:59pm Friday	COLLAB ONLY
12	Tues	Nov 11	Language & Aphasias	All L & A Objectives	Practice Quiz 16	(with team)
12	Thurs	Nov 13	Learning & Memory	All L & M Objectives	PracticeQuiz L&M	(with team)
13	Tues	Nov 18	Basal Ganglia	Objectives 1 - 5	PracticeQuiz17	(with team)
13	Thurs	Nov 20	Motor Disorders	Objectives 2 - 6	PracticeQuiz18	(with team)
14	Tues	Nov 25	Stress & HPA	1-4; 5	Practice Quiz 19	(with team)
14	Thurs	Nov 27	No class, thanksgiving break			
	Tues	Dec 2	Psychiatric Disorders- MDD	5; 6-10	Practice Quiz 20	(with team)
15	Thurs	Dec 4	Attendance Required	Homework 4 Catch up / review 3	End Semester Survey	End-Semester Self/Team Eval