

Contact Info: Dr. Elizabeth I. Flandreau; flandree@gvsu.edu
2129 Au Sable Hall (ASH)
Office Hours: 2:30-4:30pm Tuesday + By Appointment

Final Exam: 330_04 Monday, December 10th 10:00am – 11:15am
330_03 Wednesday, December 12th, 12:00pm – 1:50pm
330_05 Monday, December 10th 12:00pm – 1:50pm

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 should be a copy of this text on reserve at the library.*

* *I recommend having a personal copy, but it doesn't matter to me if you have the physical or digital text*

Course Description

- **GVSU catalog:** 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.
- **Flandreau:** This neuroscience course examines the biological underpinnings (aka "neurophysiological correlates") of psychology including perception, emotion, and behavior.

Course 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. From Syllabus of Record

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 and compare and contrast the specific process of synaptic transmission for diverse neurotransmitters and receptors.
4. Identify the behavioral function of major brain chemical systems; predict the effect of damage to these cells, pathways, or structures.
5. Describe the general principles of psychopharmacology and predict the effect of specific drugs on synaptic transmission, perception, emotion, and behavior.
6. Discuss basic research in behavioral neuroscience; critique scientific claims, identify limitations to current knowledge, integrate information from varying sources into a cohesive whole
7. Relate biological processes to everyday behavior including sensory perception, learning and memory, & neurodegenerative and psychiatric disorders.
8. Communicate complex topics effectively and efficiently

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. Intentional misuse of the intellectual property of another may subject the user to penalties up to and including dismissal. At instructors' discretion, a violation of this code of conduct may result in a reduced grade for the assignment or course or failing the assignment or the course. Violations are reported to the Dean.

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

PSY330 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! Working with students is why I chose this profession. 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. FYI to date I've never canceled class if GVSU is open

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.

PSY330 GRADING:

	ITEM	#	Points (Each)	Points (Total)	%	Notes
Online Quizzes	Syllabus Quiz	1	5	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	14	5	70	14.00	Currently 15 quizzes on the schedule. Grade = average of up to 3 attempts. 30 min time limit per attempt
Participation	In-class participation	8	2.5	20	4.00	On time attendance and active participation in class on attendance-required days.
	Online Participation	4	2.5	10	2.00	Ask one question and answer 1 question or answer 2 questions on 4 DB.
Homework	Highest 3 Homework	3	20	60	12.00	Graded based on content (group) and contribution (individual) including in-class participation
	Lowest Homework	1	10	10	2.00	Lowest scoring homework is re-calculated to have less impact on final grade
	H4 Presentation	1	10	10	2.00	Group & Individual Grade
EXAMS	Highest Midterms	2	90	180	36.00	Format = multiple choice, short answer, and essay
	Lowest Midterm	1	35	35	7.00	Lowest scoring midterm is re-calculated to have less impact on final grade
	Final Exam	1	100	100	20.00	Cumulative
	Total			500	100	

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

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.

Description of Graded Items:

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; 10 questions are randomly selected each time you take the quiz. Your grade will be an average of the attempts. 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. **See due dates on schedule.**

Group Homework Assignments: Assignments are designed to help you learn to find, digest, and discuss, complex material and to forge meaningful interactions with other humans. See BB for specific instructions and in-class and online due dates. *If your group is struggling, please see me ASAP, I can help facilitate group communication.* Assignments that do not meet the submission requirements (see below) **will earn a zero.**

Assignments must meet the following criteria to be considered for credit:

- Submissions must be in Microsoft Word
- Filename MUST be Section#Group#Homework#. It's insufficient to just name the file within BB; it must be the name of the file on your computer.
- Group number and group member names should be at the top of the first page of the submitted assignment.
- Late submissions cannot be accepted.
- Emailed submissions cannot be accepted.
- All assignments must be **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.
- Where applicable, resources must be cited in APA style

Discussion Board: Peer-instruction helps to make complex material more accessible. Use the discussion board (DB) for **all** content questions. Many of your peers share your questions, and others may be better able to explain the answer. I read every single DB thread to address misunderstandings, guide you to the best resource, and identify topics that require more class time. At a minimum, you must post one question and answer one question by the due date (**see schedule**). Grading is based on completion. Students who make full use of the discussion board tend to perform better on exams than students who do not use the DB.

Exams: Topic-specific learning objectives are your study guides. Where there is choice on exams, X out the question you do not want graded; I will grade the first questions with something written on the page. **The final exam is cumulative because the material in this course is cumulative.** A "cumulative learning objectives" file will be posted.

Extra Credit: You can receive one EC point for completing the "pre-test" at the beginning of the semester and "post test" at the end of the semester (**see schedule for due dates**). You can also earn 1pt EC for completing a mid-semester feedback survey (if available). At instructor's discretion, there may be extra credit awarded to individuals with particularly meaningful contribution to in class and / or online discussions.

HOW TO BE SUCCESSFUL IN PSY330

- 1- Use the PPT slides as your reading guide BEFORE class
 - a. Take notes from Carlson / NSO / Khan academy around the figures in the PPT
 - b. Be sure to define all vocab terms.
- 2- Do online quizzes
 - a. Once you've read the material and taken notes on the PPT, take the online quiz.
 - b. Based on your score, you may need to study a bit more before you attempt the quiz again.
 - c. Take the quiz up to 3 times.
- 3- Come to class & Take notes
 - a. Studies have consistently shown that actively taking notes in class improves learning
 - b. Make sure you have plenty of paper. I write on the board a lot. Some students find that it's helpful to have different colored pens to match what I draw.
 - c. If you miss class, get notes from a friend ASAP
- 4- Stay present:
 - a. PUT AWAY THE CELL PHONE. It is distracting and rude to your colleagues and the instructor, plus scanning the interwebs in class also defeats the purpose of attending.
 - b. 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!
- 5- Understand the material:
 - a. Go through your notes after class, write down questions / points of confusion.
 - b. Post your questions to the DB and / or ask your peers / visit office hours.
- 6- Memorize the Material:
 - a. 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!
 - b. Goal = able to explain each learning objective to a friend (or relative or pet) without referencing your notes.
- 7- Visit me: I'd love to see as many of you as possible as often as possible

This course is the “biological” underpinnings of psychology. But what if I haven't opened a biology book since ... 1993 / high school / I don't even know...

1. Go to www.khanacademy.org and search for the following videos (please note, you will not need to know the details of these videos to be successful in this class, rather, these videos may help provide background info to make this class feel a bit less like a foreign language)
 - a. Biology Overview
 - b. Scale of cells
 - c. Overview of cell signaling
 - d. DNA
 - e. DNA replication and RNA transcription and translation
 - f. Cell membrane overview

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- Get in the zone- practice your mindfulness training before beginning
- 3- 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
- 4- For Multiple Choice- Answer easy questions first, medium questions second, and “hard” questions last. This strategy serves 2 purposes:
 - a. First, if you run out of time it’s best to leave blank questions you didn’t know anyway.
 - b. Second, it’s really important for your confidence and, again, confidence is a great weapon against anxiety.
- 5- Answer multiple-choice questions on the exam itself; fill in the bubble sheet at the end. This strategy also serves a few purposes
 - a. If you skip questions your first time through you don’t want to mess up the bubble-sheet
 - b. Make sure you review all your answers before submitting
 - c. If there’s a problem with your scantron I have your answers on another form.
- 6- **Read the full question--- twice—and answer thoroughly**
 - a. Answer the question, the whole question, and nothing but the question
 - b. Adding info unrelated to the question NEVER a good idea
- 7- Be legible- if I can’t read it, I can’t grade it!
- 8- Read this info on how to write answers to essay questions <http://www.oxcoll.com/tew/exam-writing/how-to-write-in-an-exam.html> Here’s a snippet:

“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.”

330_04 8:30am – 9:45am
 330_03 11:30am – 12:45pm
 330_05 1:00pm – 2:15pm

ASH 1320
 ASH 2320
 ASH 2320

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PSY 330 SCHEDULE – Part 1 (unchanged)

Wk	Day	Date	Carlson	NSO	Topic	Attend	Due on BB 11:59pm
1	M	8.27.18					<i>Team Preferences Survey (EC)</i>
	Tu	8.28.18	2	Intro; 1.8	Intro, Cellular Neuroscience		
	W	8.29.18					Q1- Cell Neuro; Resting Vm
	Th	8.30.18	2	1.1	Resting Vm	Start H1	
	F	8.31.18			<i>100% refund deadline</i>		<i>Quiz(Syllabus), Pre-test (EC)</i>
2	M	9/3/18			Labor Day		
	Tu	9/4/18			Labor Day		
	W	9/5/18					Q2- AP
	Th	9/6/18	2	1.2,3,5	Action Potential	H1	
	F	9/7/18					Team Contract
3	M	9/10/18					Q3- Synaptic Transmission
	Tu	9/11/18	2	1.2,3,5	NT release		
	W	9/12/18					
	Th	9/13/18	2	1.3,5,6	Post Synaptic Potentials		
	F	9/14/18					HOMEWORK 1; DB1
4	M	9/17/18					
	Tu	9/18/18			Catch up / Review		
	W	9/19/18					
	Th	9/20/18	E1	E1	EXAM 1	E1	
	F	9/21/18			<i>75% tuition deadline</i>		

330_04 8:30am – 9:45am ASH 1320
 330_03 11:30am – 12:45pm ASH 2320
 330_05 1:00pm – 2:15pm ASH 2320

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PSY 330 SCHEDULE – Part 2 (Updated 8/28/18)

Wk	Day	Date	Carlson	NSO	Topic	Attend	Due on BB 11:59pm
5	M	9/24/18					Q4- Reflexes, Circuits
	Tu	9/25/18	2	Intro	Reflexes, Circuits, Neuroanatomy		
	W	9/26/18					Q5- Neuroanatomy
	Th	9/27/18	3, 4	2.1, 2,3	Neuroanatomy &	Start H2	
	F	9/28/18					
6	M	10/1/18					Q6- Psychopharm
	Tu	10/2/18	4	1.13, 11	Psychopharmacology; Glutamate, GABA		
	W	10/3/18					Q7- NTs
	Th	10/4/18	4,9	1.11,12	ACh, DA		
	F	10/5/18					
7	M	10/8/18					
	Tu	10/9/18	4,9	1.12	NE, 5HT	H2	
	W	10/10/18					DB2 <i>Soft deadline</i>
	Th	10/11/18			Catch up / Review		
	F	10/12/18					DB2, HOMEWORK 2
8	M	10/15/18					
	Tu	10/16/18	E2	E2	E2	E2	E2
	W	10/17/18					

330_04 8:30am – 9:45am ASH 1320
 330_03 11:30am – 12:45pm ASH 2320
 330_05 1:00pm – 2:15pm ASH 2320

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PSY 330 SCHEDULE – Part 3 (Updated 8/28/18)

	Day	Date	Carlson	NSO	Topic	Attend	Due on BB 11:59pm
8	W	10/17/18					
	Th	10/18/18	6	2.14,15	Vision (Retina)		
	F	10/19/18					
9	M	10/22/18					Q8- Vision
	Tu	10/23/18	6	2.14,15	Vision		
	W	10/24/18					Q9- Somatosesory
	Th	10/25/18	7	2.2,4,5,6,7,8	Somatosense & Pain	H3	
	F	10/26/18					
10	M	10/29/18					Q11-Plasticity
	Tu	10/30/18	13	Section 1 chapter 7	Synaptic Plasticity		
	W	10/31/18					Q12- L&M
	Th	11/1/18	13	Secton 4 chapter 5	Learning & Memory		
	F	11/2/18					
11	M	11/5/18					Q10- Auditory
	Tu	OUT 11/6/18	7	2.12, 13	Auditory	H3	
	W	11/7/18					
	Th	11/8/18		Review	Catch up / Review		
	F	11/9/18					HOMEWORK 3; DB3
	M	11/12/18					
	Tu	11/13/18	E3	E3	E3	E3	E3

330_04 8:30am – 9:45am ASH 1320
 330_03 11:30am – 12:45pm ASH 2320
 330_05 1:00pm – 2:15pm ASH 2320

Flandreau Fall 2018

PSY 330 SCHEDULE – Part 4 (Updated 8/28/18)

12	Day	Date	Carlson	NSO	Topic	Attend	Due on BB 11:59pm
	W	11/14/18					Q13- Aphasia
	Th	11/15/18	14	4.8	Aphasia	Start H4	
	F	11/16/18					H4 Article
	M	11/19/18					Q14- Degenerative
	Tu	11/20/18	15	4.1, 4.9	PD, HD, AD		
13	W	11/21/18					
	Th	TURKEY 11/22/18					
	F	11/23/18					
	M	11/26/18					Q15- Psychiatric
	Tu	11/27/18	15, 16	4.1, 4.9	AD, Schizophrenia		
14	W	11/28/18					
	Th	11/29/18	16		Schizophrenia, Depression		
	F	11/30/18					DB4; H4 Written
	M	12/3/18					Upload PPT
	Tu	12/4/18			H4 "Presentations"	Present	
15	W	12/5/18					
	Th	12/6/18		Review	Catch up / Review		
	F	12/7/18					
	M	12/10/18	(330_04) 10am exam; (330_05) 12pm exam				
	Tu	12/11/18					
16	W	12/12/18	(330_03) 12pm exam				
	Th	12/13/18					
	F	12/14/18					