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2129 Au Sable Hall (ASH)
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Office Hours: 2:30-3:30 Tuesday / Thursday 2129 Au Sable Hall.

Final Exam:

330-05 Mon 4/24/18 10am (8:30 am section)
330-03 Mon 4/24/18 12pm (1:00 pm section)

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

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.

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

Course Objectives (Dr. Flandreau's): 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. Critically evaluate scientific claims, identify limitations to current knowledge, integrate information from varying sources into a cohesive whole
2. Communicate complex topics effectively and efficiently.
3. Describe the structure and function of the nervous system at a cellular and systems (functional neuroanatomy) level; predict the effect of damage to these cells, pathways, or structures.
4. Explain the general process of synaptic transmission and compare and contrast the specific process of synaptic transmission for diverse neurotransmitters and receptors.
5. Identify and explain the cellular, systems, and neurochemical substrates of sensory perception; predict the effect of damage to the cells, pathways, or structures involved.
6. Describe the general principles of psychopharmacology and predict the effect of specific drugs on synaptic transmission, perception, emotion, and behavior.
7. Explain the neurobiological underpinnings of neurodegenerative and psychiatric disorders and the mechanism of action of treatments for these disorders.

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PSY330 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. Students will not take or receive the efforts of another person, use unauthorized resources, plagiarize, or give or sell other students papers or assignments not authorized by the instructor. Students are responsible for making themselves aware of and for understanding the policies and procedures that pertain to academic integrity in 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. Please hold your peers accountable to these same standards.

- *Reminder: taking another's words and swapping out synonyms or word order even with citation is **plagiarism** and violates academic integrity.* Use "safe assign" to ensure that individual and group assignments do not violate this policy.
- 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.
- All violations will be reported to the Dean.
- 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.

Email Policy: I may address inquiries at the start of class rather than responding to individual emails. Please remain professional in email communication; include the class and section #, use full sentences, and sign your full name. I answer emails in a timely manner (typically within one business day). If the answer to your inquiry can be found in the syllabus, schedule, or BB announcements, it is unlikely that you will receive an email response. 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.

Blackboard: Course syllabus, schedule, and tips for success are available on BB. PPT slide outlines will be posted to BB in advance of class whenever possible. Class announcements will also be communicated via Blackboard; it is **your responsibility** to monitor the site and ensure that you are aware of all announcements and material.

Office Hours: I would love to see as many of you as possible as often as possible! Please utilize office hours for questions about grades or grading that cannot be found on the syllabus. If you are unavailable during office hours, email to schedule an appointment. Please don't wait until the end of the semester to ask for help.

Course Schedule: See separate document. Details are subject to change but I will do everything within my power to maintain dates for exams. It is your responsibility to adhere to due dates on this schedule. Please pay close attention to announcements and the calendar available on BB. Please also see Calendar tool on blackboard. *Spoiler alert- you have something due almost every single Friday all semester. Set an alert on your calendar to remind you!*

Attendance: Please arrive on time and prepared to participate. I often make announcements in class rather than respond to individual emails. You are responsible for all announcements and information presented in class; if you are absent, please get notes from a classmate. Attendance is required on

exam days and on in-class homework days (**See schedule**). Attendance is not required on other class days; however, students who attend class regularly tend to perform better on exams.

Missed Exams: **There are no make up exams.** If you have an absence for a midterm examination, it will count as your lowest exam score and will be dropped; your final exam will then be worth a larger percentage of your total grade. You can only miss one midterm exam.

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 I have never cancelled class if the university 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: I expect every student to demonstrate respect for each other student. 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:

Category	Points (Each)	#	Total	%	Notes
Syllabus Quiz	5	1	5	1.25	The syllabus is like a contract, it's important to understand the terms. Full credit only for perfect score.
Online Quizzes	5	7	35	8.75	(of 8 total) Open note quizzes. Score = average of 2 attempts
BB DBs	3	4	12	3.00	(of 5 total) Typically due the Friday before each exam
Homework 1-3	10	3	30	7.50	Required attendance / participation.
Homework 4	13	1	13	3.25	Submit article (3), Written homework (5), In class explanation (5) Required attendance / participation
In Class Quizzes	5	4	20	5.00	Test of comprehension / preparedness on "flipped" classroom days
Highest Midterms	80	2	160	40.00	Format = multiple choice, short answer, and essay
Lowest Midterm	25	1	25	6.25	Lowest scoring midterm is re-calculated to have less impact on final grade
Final Exam	100	1	100	25.00	Cumulative
Total			400	100	

Grade = Earned Points / Total Points x 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%		

Numeric cut-offs:

240 = D	280 = C-	308 = C+	332 = B	360 = A-
268 = D+	292 = C	320 = B-	348 = B+	372 = A

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 1 point.**

Blackboard Quizzes: Online quizzes are open note and come from a pool of questions; approximately 20 questions are randomly selected each time you take the quiz. You will have 2hrs per attempt and up to 3 attempts. Your grade will be an average. Online quizzes provide instant feedback with low stakes

and tend to have a positive impact on students' overall grade. Some quiz topics may not have been covered in class but can be found in Carlson and / or Neuroscience Online. **See due dates on schedule.**

Blackboard Discussions: 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 discussion board.

In-Class Quizzes: On “flipped” days the first minutes of class will be devoted to a “reading quiz.” This quiz is designed to ensure that you have prepared for that class period. **You may use ONE side of ONE hand-written 3x5 note card as a cheat sheet for these in-class quizzes.**

Group Homework Assignments: Assignments are designed to help you learn to find, digest, and discuss, complex material. Bonus- they help prepare you for exams. 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 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.
- Late submissions cannot be accepted.
- Emailed submissions cannot be accepted.
- All assignments must be in your own words 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

Midterm Exams: **Exam questions come from material in PPTs and homework;** the more time we devote to a topic in class, the more the topic will be represented on the exam. Topic-specific learning objectives are your study guides. Where there is choice on exams, clearly X out the question you do not want graded; I will grade the first questions with something written on the page. Your lowest midterm exam score will be worth a smaller percentage of your final grade.

Final Exam: **The final exam is cumulative because the material in this course is cumulative.** We first present general information and build on that information in subsequent chapters. Themes that have been covered multiple times in the semester will be particularly represented on the final exam. A “cumulative learning objectives” file will be posted after midterm #3.

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. Students who complete **all** discussion boards and online quizzes can earn a point.

HOW TO BE SUCCESSFUL IN PSY330

- 1- Review the PPT Slides BEFORE CLASS
 - a. Write down vocab words from slides
 - b. Look up vocab words in Carlson and Neuroscience Online (NSO)
 - c. Try to fill in the blanks on the PPT slides in advance of class
- 2- Come to class
 - a. Exam material comes from in class topics
 - b. I have been known, at times, to give hints as to exam material during class.
- 3- 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: PUT AWAY THE CELL PHONE. It is not only distracting and rude to your colleagues and the instructor, but scanning the interwebs in class defeats the purpose of attending.
- 5- 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!
- 6- Read the material in Carlson and NSO related to topics covered in class
 - a. Pay special attention to figures and captions that I used in class
 - b. Take notes as you read to make sure the information 'sticks'
 - c. Make use of the interactive features of NSO!
- 7- 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!
- 8- Do the online quizzes
 - a. Studies have shown that testing yourself is a great way to improve comprehension
 - b. Don't wait until the last minute; take advantage of all 3 opportunities to take each quiz.
- 9- Participate in the discussion board: Use this as practice for answering essay questions. Note that I sometimes ask, answer, and edit answers as if they are essay exam questions.
- 10- Topic-Specific Learning Objectives are your study guide, make sure you could explain each objective to a friend
- 11- Better yet... ACTUALLY explain each objective to a friend
- 12- 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 into 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- **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
- 5- 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.
- 6- 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.
- 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.”

SCHEDULE: Part 1

Wk	Day	Date	Carlson	NSO	Topic	Attendance Req*	Due on BB 11:59pm
1	M	1/8					
	Tu	1/9	2	Intro; 1.8	Intro, Cellular Neuroscience		
	W	1/10					
	Th	1/11	2	1.1	Resting Membrane Potential		
	F	1/12			<i>100% refund deadline</i>		<i>DB1, Quiz(Syllabus), Pre-test (EC)</i>
2	M	1/15			MLK Day		<i>(Must watch AP videos before class)</i>
	Tu	1/16	2	1.2,3,5	Action Potential	AP Quiz	
	W	1/17					
	Th	1/18	2	1.2,3,5	NT release		
	F	1/19					<i>Homework 1 (AP); Quiz (NT Release; PSP)</i>
3	M	1/22					
	Tu	1/23	2	1.3,5,6	NT Release; Post Synaptic Potentials		
	W	1/24					
	Th	1/25		Intro	Reflexes, Simple Circuits		
	F	1/26					<i>Quiz (Reflexes/Circuits); DB2</i>
4	M	1/29					
	Tu	1/30			Catch up / Review		
	W	1/31					
	Th	2/1			EXAM 1	EXAM 1	
	F	2/2			<i>75% tuition refund deadline</i>		

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SCHEDULE: Part 2

Wk	Day	Date	Carlson	NSO	Topic	Attendance Req*	Due on BB 11:59pm
5	M	2/5					<i>(Neuroanatomy videos before class)</i>
	Tu	2/6	3	2.1, 2,3	Neuroanatomy	Neuroanatomy Quiz	
	W	2/7					
	Th	2/8	4		Psychopharmacology		
	F	2/9					<i>Quiz 3 (Psychopharm)</i>
6	M	2/12					
	Tu	2/13	4	1.13, 11	Glutamate, GABA		
	W	2/14					
	Th	2/15	4,9	1.11,12	ACh, DA		
	F	2/16					<i>Homework 2 Due</i>
7	M	2/19					
	Tu	2/20	4,9	1.12	NE, 5HT		
	W	2/21					
	Th	2/22			Catch up / Review		
	F	2/23					<i>Quiz4 (NTs); DB3 Mid-Sem Feedback (EC)</i>
8	M	2/26					
	Tu	2/27			EXAM 2	EXAM 2	

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SCHEDULE: Part 3

Wk	Day	Date	Carlson	NSO	Topic	Attendance Req*	Due on BB 11:59pm
8	M	2/26					
	Tu	2/27			EXAM 2	EXAM 2	
	W	2/28					
	Th	3/1	6	2.14,15	Visual System (Retina)		
	F	3/2					
9	M	3/5			Spring Break		
	F	3/9			<i>Withdraw Deadline</i>		
10	M	3/12					
	Tu	3/13	6	2.14,15	Visual System		
	W	3/14					
	Th	3/15					<i>Watch videos before class</i>
	F	3/16	7	2.12, 13	Auditory System	Auditory Quiz	<i>Quiz6 (Vision)</i>
11	M	3/19					
	Tu	3/20	7	2.2,4,5	Auditory, Somatosensory		
	W	3/21					<i>(Read NSO and watch Khan Academy videos before class)</i>
	Th	3/22	7	2.2,4,5,6,7,8	Somatosensory Receptors	SS Quiz	
	F	3/23					DB4
12	M	3/26					
	Tu	3/27	7	2.2,4,5,6,7,8	Somatosensory-Afferents, Pain		
	W	3/28					
	Th	3/29			Catch up / Review		
	F	3/30					<i>Homework 3 Due</i>
13	M	4/2					
	Tu	4/3			EXAM 3	EXAM 3	

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SCHEDULE: Part 4

Wk	Day	Date	Carlson	NSO	Topic	Attendance Req*	Due on BB 11:59pm
13	M	4/2					
	Tu	4/3			EXAM 3	EXAM 3	
	W	4/4					
	Th	4/5	14	4.8	Aphasia	<i>Choose article for Hwk4</i>	
	F	4/6					<i>Quiz7 (Aphasia)</i>
14	M	4/9					
	Tu	4/10	15	4.1	PD, HD		<i>Get article approved</i>
	W	4/11					
	Th	4/12	15,16	4.1, 4.9	AD, Schizophrenia		
	F	4/13					<i>Homework 4, Quiz8 (Neurodegen)</i>
15	M	4/16					Use feedback from Hwk4 for in-class discussion
	Tu	4/17	16	4.9	Depression; Hwk4	Hwk4	
	W	4/18					
	Th	4/19			Catch up / Review		
	F	4/20					<i>Quiz9 (Psychiatry); DB5</i>
16	Sun	4/22					<i>PostTest Due (EC); LIFT due (EC)</i>
	M	4/23	FINAL	EXAM	Section 05: 10am; Section 03: 12pm		