## PSY 330: FOUNDATIONS OF BEHAVIORAL NEUROSCIENCE, Fall 2020

Section 01 Group A: Mondays, 9:00-9:50 AM, 4402 Kindschi Hall of Science Section 01 Group B: Wednesdays, 9:00-9:50 AM, 4402 Kindschi Hall of Science Section 04 Group A: Mondays, 10:00-10:50 AM, 4402 Kindschi Hall of Science Section 04 Group B: Wednesdays, 10:00-10:50 AM, 4402 Kindschi Hall of Science

**Instructor:** Glenn R. Valdez, Ph.D. Office: 1313 AuSable Hall

Office hours: MWF 11:30 AM-12:30 PM

 $\underline{https://gvsu\text{-}edu.zoom.us/j/97944905474?pwd\text{=}cHBqMzJZTVhnd0dJWTFES1VEVTVRdz09}$ 

And by appointment

https://glenn-valdez.youcanbook.me/

Phone: (616) 331-3798 Email: valdezg@gvsu.edu

## **Course Description:**

This course provides an introduction to Behavioral Neuroscience, the scientific study of the interaction between biological processes and behavior. Topics covered include the basic structure of the nervous system, research methods in behavioral neuroscience, psychopharmacology, and neural mechanisms involved in sensory and perceptual processes, and psychiatric disorders. Prerequisites: PSY 101 - Introductory Psychology. This course is subject to the policies listed at <a href="http://www.gvsu.edu/coursepolicies">http://www.gvsu.edu/coursepolicies</a>.

## **Learning Objectives:**

Upon successful completion of this course, students should be able to:

- Identify the structure and function of the major parts of the nervous system
- Describe the process of action potentials
- Describe the process of neurotransmission
- Identify the behavioral function of major brain chemical systems
- Discuss basic research in behavioral neuroscience
- Relate biological processes and concepts to everyday behavior

## **Technology Needs:**

This course is taught under the hybrid designation, meaning that more than 15% of the course is delivered online through Blackboard, and there will regular face-to-face class meetings. Basic Technology Requirements for Online and Hybrid courses can be found on the GVSU IT Online Education website. Also, please complete the Four Steps for Readiness for Online Learning.

## High-speed internet access.

<u>Laptop</u>, tablet, and/or smartphone with a video camera and microphone. If you do not have a laptop, you may be able to apply for financial aid to help cover the cost of

one. Please visit the GVSU <u>Special Circumstance & Financial Hardship Requests</u> site for more information. Laptops may also be checked out from the Library for up to four hours with a photo ID.

<u>Microsoft Office.</u> As a GVSU student, you have access to Microsoft Office 365 for free. You will find the information on how to access this at <a href="http://www.gvsu.edu/it/softwarehardware-discounts-31.htm">http://www.gvsu.edu/it/softwarehardware-discounts-31.htm</a>.

Zoom. I will be holding online office hours through Zoom. I will also use Zoom for live class sessions after Thanksgiving Break and in the event that face-to-face class sessions need to be moved online. All current term enrolled students are eligible to use the GVSU Zoom Business license. You can find more information at https://www.gvsu.edu/it/gvsu-zoom-business-plan-247.htm





<u>Top Hat.</u> We will be using the Top Hat (<a href="https://tophat.com">https://tophat.com</a>) classroom response system in class. You will be able to submit answers to in-class questions using smartphones, tablets, laptops, or through text message. Top Hat will require a paid subscription (\$25 for the semester).





Flipgrid. We will be using Flipgrid (<a href="https://info.flipgrid.com">https://info.flipgrid.com</a>) for online video discussions.





#### **Communication:**

I will be sending emails regularly (once or twice a week) through Blackboard. You are expected to check your GVSU email regularly for course announcements and updates. The best way to contact me is by email. Monday through Friday, I will check my email regularly between the hours of 9:00 AM-5:00 PM. I will generally respond to emails within 24 hours. If you do not receive a response after 24 hours, please feel free to follow up on the original email. I check my email occasionally during the weekend. However, I do reserve the right to limit my email access over the weekend so please do not expect a response until the following Monday. If your email is regarding an urgent matter (i.e. illness, family emergency, etc.), please include the word "URGENT" in the subject line, and I will do my best to respond to your email as soon as possible.

## **Face Coverings:**

Face coverings that cover the mouth and nose are required to be worn in the classroom and during face-to-face meetings. Face masks with vents will only be permitted if the vent is completely covered and sealed off. If you have forgotten your face covering, you may get a disposable mask at a campus office. The evidence is clear that face coverings are a crucial part of keeping coronavirus at bay and support the university's commitment to providing all members of its community with an inclusive living and learning environment with equitable opportunities for success. GVSU's policy on face coverings is posted on the Lakers Together web site. If you are not able to wear a face covering due to a medical condition, contact Disability Support Services (DSR) to discuss your individual situation.

#### Office Hours:

My regularly scheduled office hours will be held <u>online</u> on Mondays, Wednesdays, and Fridays, and can be accessed through the course website in Blackboard or at the link above. I am also available to meet online by appointment. Appointments can be scheduled through the "Book an Appointment" link on Blackboard, or at the link or QR code below.

#### https://glenn-valdez.youcanbook.me/



I am willing to meet face-to-face under special circumstances. Please email me if you would like to schedule a face-to-face meeting. Per GVSU policy, face coverings are required for these meetings.

Course Blackboard Site: http://mybb.gvsu.edu/

All relevant content can be accessed through the course website on Blackboard. When you first access the site, click on the "Start Here" link in the course menu for a video tour of the site. Links to course content, course tools, and other relevant information can be found in the course menu. A detailed weekly course schedule can be found at the end of the syllabus. New weekly content will be made available on **Saturdays at 12:01 AM**, and most assignments will be due on **Fridays by 11:59 PM**.

#### Texts:

Neuroscience Online <a href="https://nba.uth.tmc.edu/neuroscience/">https://nba.uth.tmc.edu/neuroscience/</a>

This is an open-access (free) textbook for the study of neuroscience is provided by current and former faculty of the Department of Neurobiology and Anatomy at The University of Texas Health Science Center at Houston, McGovern Medical School.

Carlson, N.R., Birkett, M. (2020) Foundations of Behavioral Neuroscience (10<sup>th</sup> edition).

This is the text that I have traditionally used for this course. However, given the current situation, **this book is completely optional**. Although it may be helpful in reviewing the material or for additional reading, **you are not obligated to buy the book, especially if it poses a financial burden.** You can also rent or purchase an electronic version of the text online.

Pearson (do not purchase the Revel Access code): <a href="https://www.pearson.com/store/p/foundations-of-behavioral-neuroscience/P100002609225">https://www.pearson.com/store/p/foundations-of-behavioral-neuroscience/P100002609225</a>

RedShelf: <a href="https://redshelf.com/book/1179636/foundations-of-behavioral-neuroscience-subscription-1179636-9780134641379-neil-r-carlson-melissa-birkett">https://redshelf.com/book/1179636/foundations-of-behavioral-neuroscience-subscription-1179636-9780134641379-neil-r-carlson-melissa-birkett</a>

## Research Articles (available on Blackboard):

LeVay S. A difference in hypothalamic structure between heterosexual and homosexual men. *Science*. 1991;253(5023):1034-1037. doi:10.1126/science.1887219

Kraehenmann R, Preller KH, Scheidegger M, et al. Psilocybin-Induced Decrease in Amygdala Reactivity Correlates with Enhanced Positive Mood in Healthy Volunteers. *Biol Psychiatry*. 2015;78(8):572-581. doi:10.1016/j.biopsych.2014.04.010

#### **Learning Modules:**

The course will be divided into learning modules based on each course topic. Video lectures and the accompanying PowerPoint slides with additional notes can be found in each module. You will be responsible for all material covered in these videos and on the PowerPoint slides (including any additional notes in the slides). Links to quizzes, readings, online discussions, and other relevant materials will also be found in these modules.

#### Face-To-Face Class Sessions:

Face-to-face class sessions will focus mainly on discussion and review of content covered in the video lectures, quizzes, assignments, etc. Attendance will be taken in class. **However, you WILL NOT BE PENALIZED** for absences. Due to the restrictions on room capacity, you may only attend face-to-face class sessions on the scheduled day for your assigned group.

If you are unable to attend class on campus, you may join a livestream over Zoom where you will be able to interact with me and the rest of the class. The link to these Zoom sessions can be found on Blackboard. You will also be able to respond remotely

to any Top Hat questions and discussions through the website or app. All classes will also be recorded and posted to Blackboard.

If you are unable to attend class in person or online due to illness, quarantine, child care issues, etc., please contact me as soon as possible for alternate arrangements to make up any in class participation points. You <u>DO NOT</u> need to provide documentation for absences.

#### Quizzes:

Each learning module contains an online quiz based on the topics covered in the video lectures, face-to-face class sessions, and readings. The goal of these quizzes is to evaluate your basic understanding of the material. These quizzes will consist of 10 multiple choice questions worth one point each, for a total of 10 points per quiz. You will only have one attempt to submit the quiz. Once you submit the quiz, you will no longer be able to revise your answers. You are free to use the video modules, notes, and readings to complete the quizzes. If a technical error occurs and your quiz is not submitted properly, please email me as soon as possible. All quizzes will be due on a Friday by 11:59 PM (see specific dates in the weekly course schedule).

Your score will be available upon submission of the quiz. Correct answers will be available for you to review after the due date for the quiz. See the video tutorial on Blackboard for instructions on how to review your quizzes.

## **Research Article Assignments:**

There will be two assignments based specifically on the required research articles listed above. The goal of these articles is to expose you to some of the classic and current research in the field of behavioral neuroscience, and assess your ability to critically examine them. These assignments will consist of short answer questions. These assignments will be worth 25 points each.

Assignment sheets will be made available in the Article Assignment folder in Blackboard as Word Documents. They must be completed and uploaded to the same folder by the due dates listed below. I will only accept assignments that are uploaded as Word Documents or PDF files. If you are using another program to complete the assignment (Pages, Google Docs, etc.), please export the file to a Word Document or PDF file (instructions for how to do so are posted in Blackboard). You will have two opportunities to submit the assignment in case you have a technical issue. If you are still having technical issues when after your second attempted upload, please contact me so that I can assist you in turning in the exam. Only the most recent submission will be graded. Feedback will be provided within the assignment and gradebook using comments through Blackboard's grading tool.

Your answers to the questions will be worth a total of 20 points. The number of questions and points per question will vary for each assignment. The remaining 5 points will be based on the following criteria:

- Formatting: The assignment was uploaded to Blackboard as a Microsoft Word Document or PDF file.
- Spelling and Grammar: Your assignment should be free of typos, spelling errors, and grammatical errors.

All assignments will be due on a Friday by 11:59 PM (see specific dates in the weekly course schedule). After the due date, 5 points will be deducted from the overall grade per calendar day that the assignment is handed in late.

#### **Discussion Boards:**

Each week, you will be required to create a discussion thread in a weekly discussion forum regarding the material for the week. The purpose of these discussion posts is to provide a weekly check-in to see how you are doing with the course, and to help guide our face-to-face classes so that we can make best use of our time together. Weekly discussion posts will be worth 5 points. All discussion board posts will be due on a Friday by 11:59 PM.

Your post should address at least one of the following questions:

- What concept(s) did you struggle with this week?
- What would you like me to expand upon/clarify/review in our next face-to-face class session?
- What questions do you have regarding the week's materials?

In addition to these graded posts, discussion boards will be available for you to ask questions regarding the content of each topic covered in the class and general questions about the course. If you have a general question about the material, please post them to the discussion board rather than emailing me directly. This will allow others in the class to benefit from your questions. You are also free to answer any questions posed by other students.

## **Flipgrid Discussions:**

There will be four graded discussions during the semester, worth 10 points each, using Flipgrid. Flipgrid is a video discussion platform that can be accessed through their website (<a href="https://info.flipgrid.com">https://info.flipgrid.com</a>), directly through the link in Blackboard, or by downloading the free app. There will be separate discussion groups for Group A and Group B. If you are accessing your group through the app, make sure you enter the correct join code or scan the correct QR code.

Section	Group	Join Code	QR Code
Section 01	Group A	valdez0971	
Section 01	Group B	valdez0432	
Section 04	Group A	valdez7195	
Section 04	Group B	valdez4368	

The topics for these discussions are:

- Introductions
- Non-Medical Use of Adderall
- Criminal Behavior and Biology
- Stigma and Psychiatric Disorders

The goal of this assignment is to allow us to have more interactive discussions regarding contemporary topics in the field of behavioral neuroscience, and to help create more of a sense of community within the class. For each topic, you will be required to record a post regarding the discussion topic that will be worth 5 points. These posts will be due on a Friday by 11:59 PM (see specific dates in the weekly course schedule). After these initial posts are due, you may earn up to 10 points of extra credit by leaving a substantive reply to other students' original posts. You will receive 5 extra credit points for replying to at least one post. You will receive 10 extra credit points if you reply to three or more posts. Replies will be due by the next Friday at 11:59 PM. Late replies for extra credit will not be accepted.

## In Class Participation:

50 points of your semester grade will be based on in-class participation. We will be using the Top Hat (<a href="www.tophat.com">www.tophat.com</a>) classroom response system in class. You will be able to submit answers to in-class questions using a smartphone, tablet, laptop, or through text message. You can visit the <a href="Student: Quick Start Guide">Student: Quick Start Guide</a>, which outlines how you will register for a Top Hat account, as well as provides a brief overview to get you up and running on the system. After you register, you will be asked to find the course with its join code. Please be sure to register for the correct section with the correct join code.

Section	Group	Join Code
Section 01	Group A	080886
Section or	Group B	279606
Section 04	Group A	758350
Section 04	Group B	707503

Unless I specifically ask that responses remain anonymous, I will be tracking responses to the in class questions. Your grade will be based on the percentage of questions answered throughout the entire semester as outlined below. If you are unable to attend class due to illness, quarantine, child care issues, etc., please contact me as soon as possible for alternate arrangements to make up any in class participation points.

Percentage of questions answered	Participation points
75-100%	50
50-74.9%	40
25-49.9%	25
0-24.9%	0

#### **Exams:**

There will be four exams that will be worth 100 points each. The exam format will be short essays and will be based on what is covered in the video lectures, PowerPoint slides, face-to-face class sessions, and readings. The goal of the exams is to gauge your ability to integrate and explain concepts in a manner that goes beyond a simple repetition of facts and definitions. The number of questions and the point total for each question will vary between exams (likely between 5-8 questions). You will be required to answer all questions on the exam. Exams will be made available in an Exam folder on Blackboard as Word Documents on the dates listed below. They must be completed and uploaded to the same folder by the due dates listed below. I will only accept exams that are uploaded as Word Documents or PDF files. If you are using another program to complete the exam (Pages, Google Docs, etc.), please export the file to a Word Document or PDF file (instructions for how to do so are posted in Blackboard). You will have two opportunities to submit the exam in case you have a technical issue. If you are still having technical issues when after your second attempted upload, please contact me so that I can assist you in turning in the exam. Only the most recent submission will be graded. Feedback will be provided within the exam and gradebook using comments through Blackboard's grading tool. All exams are open book/open note. You are free to use the video modules, notes, and readings to complete the exams. The only time limitation for the exam is that it must be submitted by the due date. Due to this format, I will have higher expectations regarding accuracy and clarity of your answers than I would if these were in class, closed book exams. Minor grammatical errors will not be penalized. However, grammatical errors that make your answers difficult to understand and/or typos/spelling errors that change the meaning of the answer will result in point deductions. Obvious typos and errors will also

be penalized. See the weekly schedule for specific availability dates and due dates.

#### Course Grades:

Grades will be based on your performance on examinations, quizzes, research article assignments, discussion assignments, and in-class participation. **EXTRA CREDIT OPPORTUNITIES BEYOND REPLIES TO THE FLIPGRID POSTS WILL NOT BE LIKELY.** Grades are calculated based on the following point values.

Exam 1	100 points
Exam 2	100 points
Exam 3	100 points
Exam 4	100 points
Quizzes	110 points
Research Article Assignments	50 points
Discussion Board Posts	65 points
Flipgrid Discussions	20 points
In-class Participation 50 points	
Total Available Points	695 points
Possible Extra Credit Points	40 points

Letter grades will be assigned according to the following scale. Final grades are calculated as the percentage of points based on the of the total points available and are rounded to the nearest whole number.

Α	93-100%
A-	90-92%
B+	87-89%
В	83-86%
В·	80-82%
Ċ C	77-79%
С	73-76%
Ċ	70-72%
D+	67-69%
D	60-66%
F	≤ 59

Please consider this general description of what each grade means.

F/D/D+: Despite your best efforts, you are struggling with the material and need

help to understand why you are having difficulty. Please set up an appointment so that we can determine the best course of action for

you if you fall in this range.

C-/C/C+: You did all the necessary work. You learned all the basic material and

know the correct answers.

B-/B/B+: You did all the necessary work. You learned all the basic material, and

you know the correct answers. Plus you really get the material. You **understand the correct answers** and could teach it to a friend.

A-/A: You did all the necessary work. You learned all the basic material, and

you know the correct answers. You really get the material. You

understand the correct answers and could teach it to a friend. Plus you can use it flexibly and adaptively. You **understand WHY the answers are** 

what they are, and how this material can be applied to different

situations.

## **Academic Integrity:**

The principles of truth and honesty are recognized as fundamental to a community of teachers and scholars. Grand Valley State University expects that both faculty and students will honor these principles, and in so doing, protect the validity of university grades. All academic work will be done by the student to whom it is assigned, without unauthorized aid of any kind. Instructors, for their part, will exercise care in the planning and supervision of academic work so that honest effort will be positively encouraged. Cheating and plagiarism are the two most obvious violations of academic honesty. In brief, plagiarism is borrowing ideas, words, organization, etc., from another source or person and claiming them as original. Such activity may result in failure of a specific assignment, an entire course, or, if flagrant, dismissal from the University. For further information, see the "Student Code."

#### Accommodation for disability:

If there is any student in this class who has special needs because of a learning, physical or other disability, please contact the Disabilities Support Resources (DSR) Program in the Advising Resources and Special Programs Unit at 331-3588.

# Weekly Course Schedule (Subject to change)

Week	Readings and Online Video Lectures	Assignments
Week 1	Learning Modules	Friday, by 11:59 PM
8/31-9/4	- Neurons and Neurotransmission Required Videos	- Flipgrid Discussion: Introductions
	- Neurons and Neurotransmission Part 1 Recommended Readings	Weekly Discussion Board     Post: Neurons and     Neurotransmission
	- Neuroscience Online: Section 1, Chapter 1, 1.1-1.4	Neurotransmission
	- Neuroscience Online: Section 1, Ch 6, 6.1, 6.2, 6.5, 6.6	Optional
	- Carlson & Birkett: Chapter 2	- Additional discussion posts
		*No online quiz this week
Week 2	No face-to-face class meeting on Monday. I will live	Friday, by 11:59 PM
9/5-9/11	stream and record Wednesday's class for Group A.	Flipgrid Discussion: Replies to     Introductions
Labor Day Recess 9/6-9/7	<ul><li>Learning Modules</li><li>Neurons and Neurotransmission</li><li>Required Videos</li></ul>	Weekly Discussion Board     Post: Neurons and
	Neurons and Neurotransmission Part 2     Recommended Readings	Neurotransmission  Optional
	- Neuroscience Online: Section 1, Chapter 1, 1.1-1.4	- Additional discussion posts
	- Neuroscience Online: Section 1, Ch 6, 6.1, 6.2, 6.5, 6.6	*No and the control
	- Carlson & Birkett: Chapter 2	*No online quiz this week
Week 3	Learning Modules	Friday, by 11:59 PM
9/12-9/18	- Neurons and Neurotransmission	- Neurons and
	- Neuroanatomy Required Videos	Neurotransmission Quiz - Weekly Discussion Board
	- Neuroanatomy	Post: Neuroanatomy
	Recommended Readings	Optional
	<ul><li>Neuroscience Online: Section 2, Chapter 1</li><li>Carlson &amp; Birkett: Chapter 3</li></ul>	- Additional discussion posts
Week 4		Thursday of 42:04 AM
vveek 4 9/19-9/25	Exam 1 - Neurons and Neurotransmission	Thursday at 12:01 AM - Exam 1 Available
		- Exam i Avallable
	- Neuroanatomy	Friday, by 11:59 PM
	Learning Modules	- Exam 1 Due
	- Neuroanatomy	- Neuroanatomy Quiz
	- Psychopharmacology	- Flipgrid Discussion: Non- Medical Adderall Use
	Required Videos - Psychopharmacology	- Weekly Discussion Board
	Recommended Readings	Post: Psychopharmacology
	- Carlson & Birkett: Chapter 4	Optional
		- Additional discussion posts

Week	Readings and Online Video Lectures	Assignments
Week 5	Learning Modules	Friday, by 11:59 PM
9/26-10/2	- Psychopharmacology	- Psychopharmacology Quiz
	- Neurotransmitter Systems Required Videos	Flipgrid Discussion: Non- Medical Adderall Use Replies
	- Neurotransmitter Systems Recommended Readings	Weekly Discussion Board     Post: Neurotransmitter
	- Neuroscience Online: Section 1, Chapter 11, 11.1, 11.4, 11.14, 11.16	Systems Optional
	<ul> <li>Neuroscience Online: Section 1, Chapter 12, 12.1, 12.5, 12.11 (only the subsections on DA, NE, and 5-HT), 12.27-12.33</li> </ul>	- Additional discussion posts
	- Neuroscience Online: Section 1, Chapter 13, 13.5, 13.7, 13.10, 13.13, 13.17, 13.18	
	- Neuroscience Online: Section 2, Chapter 8, 8.1	
	- Carlson & Birkett: Chapter 4	
Week 6	Learning Modules	Friday, by 11:59 PM
10/3-10/9	- Neurotransmitter Systems	- Neurotransmitter Systems
	- Visual Perception	Quiz
	Required Videos	- Weekly Discussion Board
	- Visual Perception Recommended Readings	Post: Visual Perception
	- Neuroscience Online: Section 2, Chapter 14, 14.3-14.5	Optional
	- Neuroscience Online: Section 2, Chapter 15	- Additional discussion posts
	- Carlson & Birkett: Chapter 6	
Week 7	Learning Medules	Friday by 11-50 DM
vveek / 10/10-10/16	Learning Modules	Friday, by 11:59 PM
10,10 10,10	- Visual Perception	- Visual Perception Quiz
	- Auditory Perception and Somatosenses Required Videos	Weekly Discussion Board     Post: Auditory Perception and     Somatosenses
	- Auditory Perception	
	- Somatosenses Recommended Readings	Optional
	- Neuroscience Online: Section 2, Chapter 12	- Additional discussion posts
	- Neuroscience Online: Section 2, Chapter 13	
	- Carlson & Birkett: Chapter 7	
Wook 9	Evam 2	Thursday at 12:04 AM
Week 8 10/17-10/23	Exam 2	Thursday at 12:01 AM - Exam 2 Available
	<ul><li>Psychopharmacology</li><li>Neurotransmitter Systems</li></ul>	- Exam z Available
	- Visual Perception	Friday, by 11:59 PM
	Auditory Perception and Somatosenses	- Exam 2 Due
	Learning Modules	<ul> <li>Auditory Perception and Somatosenses Quiz</li> </ul>
	- Auditory Perception and Somatosenses	- Flipgrid Discussion: Criminal
	- Fear and Aggression Required Videos	Behavior and Biology - Weekly Discussion Board
	Fear and Aggression     Recommended Readings	Post: Fear and Aggression  Optional
	- Neuroscience Online: Section 4, Chapter 6, 6.5, 6.6	- Cp. Cria

- Carlson & Birkett: Chapter 11 - Additional discussion posts
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Week	Readings and Online Video Lectures	Assignments
Week 9	Learning Modules	Friday, by 11:59 PM
10/24-10/30	- Fear and Aggression	- Fear and Aggression Quiz
	- Sex and Sex Differences Required Videos	Flipgrid Discussion: Criminal     Behavior and Biology Replies
	- Sex and Sex Differences	- LeVay Article Assignment
	Required Reading	- Weekly Discussion Board
	- LeVay, 1991 Recommended Readings	Post: Sex and Sex Differences
	- Carlson & Birkett: Chapter 11	Optional
		- Additional discussion posts
Week 10	Learning Modules	Friday, by 11:59 PM
10/31-11/6	- Sex and Sex Differences	- Sex and Sex Differences Quiz
	Learning and Memory	- Weekly Discussion Board
	Required Videos	Post: Learning and Memory
	- Learning and Memory Part 1 Recommended Readings	Optional
	- Neuroscience Online: Section 4, Chapter 5, 5.6	- Additional discussion posts
	Neuroscience Online: Section 4, Chapter 7, 7.3, 7.4 (only the subsection on long-term potentiation)	
	- Carlson & Birkett: Chapter 13	
Week 11	Learning Modules	Friday, by 11:59 PM
11/7-11/13	- Learning and Memory Required Videos	Weekly Discussion Board     Post: Learning and Memory
	- Learning and Memory Part 2 Recommended Readings	Optional
	- Neuroscience Online: Section 4, Chapter 5, 5.6	- Additional discussion posts
	- Neuroscience Online: Section 4, Chapter 7, 7.3, 7.4 (only the subsection on long-term potentiation)	*No online quiz this week
	- Carlson & Birkett: Chapter 13	
Week 12	Exam 3	Thursday at 12:01 AM
11/14-11/20	- Fear and Aggression	- Exam 3 Available
	- Sex and Sex Differences	
	- Learning and Memory	Friday, by 11:59 PM
		- Exam 3 Due
	Learning Modules	- Learning and Memory Quiz
	Neurological Disorders     Learning and Memory  Page irod Videos	Deadline extended to Sunday, 11/29 by 11:59 PM
	Required Videos - Alzheimer's Disease	- Weekly Discussion Board
	- Alzheimer's Disease	
	- Parkinson's Disease	Post: Neurological Disorders
	- Parkinson's Disease Recommended Readings	Optional
	- Parkinson's Disease	

Carlson & Birkett: Chapter 15 (only the subsections on Dementia and Parkinson's Disease)	
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Week	Readings and Online Video Lectures	Assignments
Week 13 11/21-11/27 Thanksgiving Break 11/25-11-27	No face-to-face class sessions this week.  Continue with the Learning Module on Neurological Disorders from Week 12 if needed.	Week 12 Discussion Post Deadline Extended to Sunday, 11/29 by 11:59 PM  Optional Additional discussion posts
		*No online quiz this week
Week 14 11/28-12/4	Live class session will take place online using Zoom during regularly scheduled class times.  Learning Modules  - Neurological Disorders  - Psychiatric Disorders  Required Videos  - Mood Disorders  - Anxiety Disorders  - Schizophrenia Required Reading  - Kraehenmann et al., 2015 Recommended Readings  - Carlson & Birkett: Chapter 16	Friday, by 11:59 PM  - Neurological Disorders Quiz  - Flipgrid Discussion: Stigma and Psychiatric Disorders  - Kraehenmann et al. Article Assignment  - Weekly Discussion Board Post: Psychiatric Disorders  Optional Additional discussion posts
Week 15 12/5-12/11	Live class session will take place online using Zoom during regularly scheduled class times.  Learning Modules  - Psychiatric Disorders Required Videos	<ul> <li>Friday, by 11:59 PM</li> <li>Psychiatric Disorders Quiz</li> <li>Flipgrid Discussion: Stigma and Psychiatric Disorders Replies</li> </ul>
	<ul> <li>Mood Disorders</li> <li>Anxiety Disorders</li> <li>Schizophrenia</li> <li>Recommended Readings</li> <li>Carlson &amp; Birkett: Chapter 16</li> </ul>	Optional Additional discussion posts  *No weekly discussion board post this week
Finals Week	Exam 4 - Neurological Disorders - Psychiatric Disorders	Monday, 12/14 at 12:00 PM - Exam 4 Available  Wednesday, 12/16 by 11:59 PM - Exam 4 Due

## **Summary of Key Dates (Subject to change)**

Fridays throughout the semester by 11:59 PM	Learning Module Online Quizzes  Weekly Discussion Board Posts (*Exception: Discussion board post for Neurological Disorders will be due on Sunday, 11/29)
Friday, 9/4 by 11:59 PM	Flipgrid Discussion: Introductions
9/6-9/7	Labor Day Recess, No Monday Class on 9/6
Friday, 9/11 by 11:59 PM	Flipgrid Discussion: Replies to Introductions
Thursday, 9/24 at 12:01 AM	Exam 1 Available
Friday, 9/25 by 11:59 PM	Exam 1 Due Flipgrid Discussion: Non-Medical Adderall Use
Friday, 10/2 by 11:59 PM	Flipgrid Discussion: Replies to Non-Medical Adderall Use
Thursday, 10/22 at 12:01 AM	Exam 2 Available
Friday, 10/23 by 11:59 PM	Exam 2 Due Flipgrid Discussion: Criminal Behavior and Biology
Friday, 10/30 by 11:59 PM	Flipgrid Discussion: Replies to Criminal Behavior and Biology LeVay Article Assignment
Thursday, 11/19 at 12:01 AM	Exam 3 Available
Friday, 11/20 by 11:59 PM	Exam 3 Due
Monday, 11/23	No face-to-face classes
11/25-11/29	Thanksgiving Break
Monday, 11/30	All instruction moved online for the remainder of the semester
Friday, 12/4 by 11:59 PM	Flipgrid Discussion: Stigma and Psychiatric Disorders Kraehenmann et al. Article Assignment
Friday, 12/11 by 11:59 PM	Flipgrid Discussion: Replies to Stigma and Psychiatric Disorders
Monday, 12/14 at 12:00 PM	Exam 4 Available
Wednesday, 12/16 by 11:59 PM	Exam 4 Due