NEU 301: Introduction to Neuroscience I

3 credits
Hybrid Course
Fall 2022

COURSE DESCRIPTION:

This is the first semester of a two-semester introductory neuroscience course sequence. The topics presented in NEU301 will cover the basic principles of cellular and systems neuroscience, including discussions focused on neurophysiology, chemical signaling, central nervous system and peripheral nervous system anatomy, visual systems, auditory systems, olfaction, and gustation. Information in this course will be presented as 1) recorded videos and 2) recitation activities that can be completed individually or in synchronous sessions facilitated by teaching and learning assistants.

COURSE PLATFORM/STRUCTURE:

For the fall 2022 semester, NEU 301 lecture will be offered as a hybrid course. Content will be delivered through 1) asynchronous lecture videos on D2L, 2) a recitation activity, 3) Reading from text.

OPTIONAL IN PERSON MEETING- WEDNESDAY (SEE SCHEDULE) 10:20 AM-11:40 AM

Attendance at our in-person meeting is highly encouraged, but it is not required.

During the in-person meeting students will have an opportunity to work through a recitation worksheet with their peers and instructors. Recitation worksheets do not count toward student grades, but rather are low-stakes formative assessments for students to improve their learning. It is unlikely that we will spend the entire class time working on the Recitation. There will also be time during the in-person meeting for students to speak with instructors and ask questions about course content.

Students have the option to attend via a synchronous Zoom session and work with other students online, if they prefer. Students also have the option to not attend at all (not in person, not via synchronous Zoom).

The Optional Recitation Worksheets can be completed:

- 1) In person during our meeting on Weds with peers and instructors
- 2) Synchronously over Zoom with TAs available to answer questions during the time set for our in-person meeting
- 3) Online and asynchronously throughout the week
- 4) Not at all (failure to complete will not negatively affect student grade).

You will need your MSU NetID to login to the course from the D2L homepage to access our course materials (http://d2l.msu.edu). In D2L you will access online videos, course materials, and additional resources. Activities will include readings, quizzes, discussion forums, email, and other online activities. Links out to Google Classroom will also be available through D2L (for recitation submission). This is not a self-paced course- that is, there will be assignments that are due at specific times throughout the week. Students that do not meet these deadlines will not earn credit for those assignments.

OPTIONAL SYNCHRONOUS ZOOM SESSION INFORMATION

All students have the option to attend a synchronous Zoom meeting during our regular class time. You will have the opportunity to work on the optional Recitation activity with other students on Zoom. A course instructor will moderate the Zoom room and address any questions. You will also get to hear any discussions that occur with the in-person students.

NEU 301 Synchronous Zoom Meeting Weds 10:20am- 11:40am

Join Zoom Meeting https://msu.zoom.us/j/93381628358

Meeting ID: 933 8162 8358

Passcode: NEU301

PREREQUISITES: (BS 161 or BS 181H or LB 145) and (BS 162 or BS 182H or LB 144)

RECOMMENDED COURSES: PSY 101

CONTENT KNOWLEDGE REQUIREMENTS

Students should have a basic understanding of biology (homeostasis, diffusion, concentration gradients, molecular and cellular biology, including parts of the cell and their functions, basic genetics, and basic literacy in graph reading). These skills will be necessary to build on as we focus in on nervous systems function. If you feel that you need more review in these areas, then please review your notes from your introductory biology courses.

COURSE GOALS:

- 1. Develop an appreciation for the many sub-disciplines that exist in the field of neuroscience.
- 2. Learn the fundamental principles of the anatomy and physiology of the nervous system.
- 3. Define, articulate and model the molecular, cellular, and anatomical organization of the central and peripheral nervous systems.
- 4. Understand the properties of nervous system cells that allow them to use electrical and chemical signals for cellular communication.
- 5. Understand, describe, and model the structure and function of brain systems (visual, auditory, olfactory, gustatory, balance).
- 6. Interpret primary data from scientific literature and be able to identify and assess the experimental approaches used in neuroscience.

INSTRUCTOR INFORMATION

If you have questions about course content, please post the questions to the content Discussion Forum on D2L.

Valerie Hedges, Ph.D. (She/her/hers) 208 Giltner Hall

Office hours: weekly and by appointment

hedgesva@msu.edu

COURSE ASSISTANTS

If you have questions about course content, please post the questions to the content Discussion Forum on D2L.

Teaching Assistants:

Jada Archer (she/her/hers) archerj6@msu.edu

Melinda Meiring (she/her/hers) meiringm@msu.edu

Sanjana Venkatraman (she/her/hers) venkat49@msu.edu

Undergraduate Learning Assistants:

Ashley Harlock (she/her/hers) harlocka@msu.edu

Mackenzie Mase (she/her/hers) masemack@msu.edu

TEXTBOOK:

To reduce costs for students, we will be using a **freely available online Open Educational Resource (OER)** that I have prepared for our course. There will <u>not</u> be any materials that you need to purchase for our course. When accessing the OER, be aware that it can be downloaded, viewed in different accessible formats, and can be printed by the MSU library for a nominal fee if you wish to have a hard copy. Note that chapters in this text are much shorter than traditional textbooks and are more focused on the content that we will be covering in our course. If you are interested in recommendations for other Neuroscience textbooks (for recreational reading) please contact Dr. Hedges directly.

Text Link: Introduction to Neuroscience – Simple Book Publishing (msu.edu)

TECHNOLOGY REQUIREMENTS AND RESOURCES

- Internet connection (preferably high speed)
- Access to D2L homepage: D2L Home Page
- Access to Google Classroom page: Google Classroom Home page

- See the Student Handbook under Policies and Procedures for Computer Technology and Laptop requirements
- The MSU Tech Store offers special computer hardware and software pricing for students.
- Microsoft Office 365 if available (for free) to all students by logging in through this website: <u>Microsoft</u> 365 MSU with your MSU username and password

EXPECTATION OF COMPUTER SKILLS AND DIGITAL INFORMATION LITERACY

- Using the learning management system, D2L
- Using email with attachments
- Copying/pasting and editing text
- Basic word processing skills necessary for completion of recitation assignments via a Google Doc through Google Classroom
- Basic internet literacy skills to efficiently navigate D2L, Google Classroom, and email

TECHNICAL ASSISTANCE

- If experiencing a problem, students are required to contact the help desk first.
- If you require technical assistance, or need to report a problem:
 - Visit the IT support site: MSU IT Support
 - Visit the D2L Help site: <u>D2L Help Site</u>
 - Call IT Help Line at 517-432-6200 or toll free (844) 678-6200
- If the student has any technology difficulties accessing D2L, contact the IT Help Line, explain the situation, and ask for assistance.
- Faculty is not responsible for assisting in resolving technology difficulties
- Students are required to notify the lead course faculty via email regarding any technical difficulties, after speaking with IT Help Desk

OFFICE HOURS

Office hours will be held on Zoom for student convenience and are spread throughout the week to meet the flexibility needs of students. Dr. Hedges is also available to meet by appointment if you need to discuss something in a one-on-one environment, or if you are unable to attend any of the other scheduled office hours.

An appointment is NOT necessary to attend office hours- you are encouraged to "drop in" to the office hours. Once you join Zoom, you will be placed in a waiting room and the instructor will let you in. It is possible that you may wait if they are meeting with another student.

This table lists the days, times, and Zoom links for drop-in office hours offered for each instructor.

Day(s)	Instructor	Time	Zoom link and ID	Zoom Password
Monday	Valerie Hedges	10:30 AM-	https://msu.zoom.us/j/98631316108	NEU301
		12PM	Meeting ID: 986 3131 6108	
Tuesday	Jada Archer	3-4 PM	https://msu.zoom.us/j/97092496443	NEU301
			Meeting ID: 970 9249 6443	
Wednesday	Melinda Meiring	12:30- 2:30	https://msu.zoom.us/j/97230187735?pwd=WUIPRXJMdkFV Ym9YdyszZHRCdkxMQT09	NEU301
		PM	Meeting ID: 972 3018 7735	
Wednesday	Jada Archer	5-6 PM	https://msu.zoom.us/j/97092496443	NEU301
			Meeting ID: 970 9249 6443	
Thursday	Sanjana Venataraman	4-5 PM	https://msu.zoom.us/j/91926194916	NEU301
			Meeting ID: 919 2619 4916	
Friday	Sanjana Venkataraman	4-5 PM	https://msu.zoom.us/j/91926194916	NEU 301
			Meeting ID: 919 2619 4916	

COMMUNICATION:

Email Etiquette:

You are responsible for reading and responding appropriately to the emails sent to your account.

- If an instructor reaches out to you requesting a reply, you must reply within 24 hours of the email being sent on Monday-Thursday, or 48 hours of the email being sent Friday-Sunday
- Please allow 24 hours for a *response from the course instructor* and the *course assistants* to an email sent Monday-Thursday
 - If a response is not received, please email again as we can receive many emails in a given day.
- Please allow 48 hours for a response to an email sent Friday- Sunday.
- When attempting to communicate via email, please be sure that the email was actually sent.
 Excuses related to unsent emails or emails sent to the wrong address are not acceptable excuses.
- 1. Questions about course administration, illness, grief absences, scheduling (grades, due dates, etc.) should be directed to Dr. Valerie Hedges
- 2. Questions about course assignment specifics (including Google Classroom assignments) should be directed to the Teaching Assistants (any listed in the syllabus).

When contacting any of your instructors, please follow these Email Rules to receive a reply:

- 1. Use your MSU email account.
- 2. Include NEU 301 in the subject line of the email along with your name, and a topic for your email (eg. NEU 301- Valerie Hedges- exam grading question).
- 3. Please write a professional email by using full sentences and signing off on your email. In an effort to promote professionalism in communication, please avoid being rude or demanding in emails.
- 4. If you have very involved questions or large misunderstandings, avoid email contact and seek out help during office hours or during recitation. You may attend any of the listed office hours. You may also ask questions during the in-person weekly meeting.

Announcements

- I will make course announcements (usually weekly) through <u>D2L</u>, and the email account associated with <u>D2L</u>.
- Please make sure you are checking D2L daily for announcements and emails. If you haven't done so already, you should have your D2L email forwarded to your MSU email account.

LEARNING CONTINUITY STATEMENT:

If you find that you are unable to complete coursework for an extended period of time (defined as a week in our course) due to outside circumstances beyond your control, you need to communicate with

Dr. Hedges about your prolonged absence within 1 week of the last completed course assignment. Dr. Hedges will try to work with you so that you may complete the missed coursework and assessments.

COURSE CONTINUITY STATEMENT:

If the lead instructor is required to be absent for an extended period of time, students should funnel course questions to Jada Archer, the Assistant Instructor in the course. If this circumstance arises, Dr. Hedges will inform the class via email as soon as possible. Dr. Hedges will attempt to still be available over email and students should not expect that assignment feedback or grading will be affected.

IN CASE OF SICKNESS:

If you experience an illness during the course of the semester that prevents you from completing your assignments, then students should make an attempt to complete the assignments prior to the absolute due date. If this is not possible, then students should contact Dr. Hedges as soon as possible.

If you are sick during the time scheduled for an exam, then you need to inform Dr. Hedges within 24 hours of the missed exam to schedule a makeup exam.

COURSE SPECIFICS

COURSE OUTLINE/SCHEDULE:

The detailed course schedule is available as a separate document on D2L. This schedule lists topics, assigned readings, quizzes, bonus work: recitations and bonus assignments, and exams. Due dates (suggested and absolute) are indicated on the schedule.

Each part of the course is detailed in the following sections, but below are general guidelines regarding your routine in this course. Note that some of our due dates are flexible this semester.

You will see that there are suggested due dates in the schedule (and below) as well as absolute due dates in the schedule.

Our weeks will "start" on Friday, then we will have our in-person Recitation meeting the following Wednesday, and the quiz for that unit will be due the following Friday.

Wednesday at 5:00 PM:

 Recitation from previous week has absolute DUE date on Google Classroom (for those completing BONUS WORK- see gradings section)

Friday Morning at 8:00 AM:

• Lecture videos for the upcoming week open and will always remain open

- Weekly quiz for the upcoming week opens
- Recitations for the upcoming week open on Google Classroom
- Bonus Assignment for the upcoming week open

Friday at 5:00 PM:

- Quiz from previous week has suggested DUE date on D2L (absolutely due before next exam)
- Bonus Assignment has absolute DUE date on D2L

Exams will open on the first date indicated in the schedule at 8:00 AM and close on the second date indicated in the schedule at 8:00 AM.

LECTURE VIDEOS

- Students will be responsible for the content that is covered in lecture videos, recitations, and the text.
- Lecture videos will have captions available, can be downloaded, and can be sped up or slowed down.
- Each week there will be multiple shorter videos broken up by topic, rather than one long lecture video. This has been done so that students may easily re-watch videos on topics of their choosing.
- Videos may request that you pause your video and complete an activity. These activities are short exercises that are meant to help students think through material.
 - These exercises will not be graded or checked by instructors- these are just practice for students and entirely optional (though recommended).
 - o Completing these activities help prepares students for quizzes and exams in class.

Please understand that the schedule that is on D2L is only tentative and may be changed by the instructor to accommodate better learning of the material. I recommend that students read the assigned text before watching the lecture videos to help facilitate learning.

ASSIGNMENTS-REQUIRED

I have been making an effort to improve grading equity within this course. For grades to be more equitable, they should only reflect a student's performance rather than their behavior (like participation or attendance). Towards this effort, student grades will no longer incorporate any required participation grades. You will also find that some of our due dates are flexible this semester. Student grades will only be a reflection of the

knowledge and understanding that students have demonstrated on content-based assessments in the course: 1) Exams and 2) D2L Quizzes.

1) EXAMS

The bulk of your grade in our course will be determined by summative assessments (exams) that asses learning and understanding of the material.

- There will be four exams in this course that will be graded out of 50 points each. These points are only
 used to determine what level was achieved on the exam (details in grading section)
- Each exam will cover the material covered since the previous exam and will <u>not be cumulative</u>. This includes the Final Exam which will NOT be cumulative.
- Exams are open note/open book. <u>Students are NOT permitted to use the internet as a resource on their exams</u>. Answers copied from the internet are a violation of academic honesty and will result in <u>issuance of an academic dishonesty report</u>.
- Exam dates are noted in the schedule posted on D2L.
- Exams will be administered through D2L and will consist of 2 parts.
 - Part 1 will consist of multiple-choice questions and multiselect questions that will be graded automatically by D2L. (50 min to complete, or more time in accordance with the student VISA)
 - Part 2 will be short answer questions that will be hand graded by an instructor. (8 min per question, variable number of questions, or more time in accordance with the student VISA)
 - Each Part will be opened separately within D2L
- Expect about 60-70% of the exam to be graded by D2L (multiple choice, multiselect), and approximately 30-40% of the exam to be hand graded.

Penalty for missed Exams:

Students are given at least 48 hours to complete the exam to provide flexibility. Exam dates are located in the syllabus and in the course schedule posted to D2L. Reminder emails will also be sent for each exam. It is the responsibility of the student to complete the exam during the specified time. If an exam is missed due to a circumstance outside the control of the student, this must be communicated with Dr. Hedges as soon as possible, but must be done within 24 hours of the missed exam. If there is not a legitimate reason that can be verified by Dr. Hedges for the missed exam, then a grade of "unsatisfactory" will be administered.

Note that a scheduled event is not outside the control of the student. These events need to be communicated with Dr. Hedges prior to the exam (preferably at least 1 week prior to exam).

Notes on Exams:

I recognize that for many of you this course represents one of your first neuroscience courses as you pursue your degree. As such, I want to emphasize the importance of learning **scientific practices**. In this course we will focus on 4 of the scientific processes:

- 1) making and evaluating models
- 2) analyzing data
- 3) scientific explanations
- 4) communication

Students will be given an opportunity to practice each of these practices through optional activities and questions during lecture videos and recitation exercises prior to being assessed on exams.

Exam 4 will take place during Finals Week and will not be cumulative and will only cover the material and recitations that were presented following Exam 3.

Exam Review Sessions:

Review sessions will be offered at least one evening the week preceding each exam and will be given by course instructors. Students should come prepared with questions, misconceptions, and confusions to be addressed. There will not be a formal presentation from the TAs, but rather, the review will be more casual question and answer format.

EXAM CORRECTIONS:

A second attempt on the exam will be opened after the first attempt has been graded and posted. The grades from the first attempt and second attempt on the exam will be averaged together to determine the final grade on the exam. Students will have the opportunity to review their exams prior to the submission of their second attempt. A document is posted on D2L under the "Exam Information" Module that details exam corrections.

REVIEWING EXAM FEEDBACK:

- Students will be emailed after exam grades on the first attempt are posted.
- o The email will specify when the review period and exam correction period will be open.
- The ability to review the exam will only be open for 24 hours.
- Students will only see questions that were incorrect
- Under each incorrect question is an expandable feedback section where notes have been written about what to review for each question

 It is the responsibility of the student to view their feedback during the designated time. Feedback will not be accessible after this time.

 If a student fails to view the Exam feedback, they are still eligible to complete a 2nd exam attempt

COMPLETING EXAM CORRECTIONS:

• Exam corrections are not required but are available for students that wish to improve their score on each exam.

 Students can complete a second attempt on Part 1 only, Part 2 only, OR both Part 1 and Part 2

• When taking the second attempt on the exam, students will only be able to answer the questions that were previously incorrect.

 Questions that were answered correctly in the first attempt will be locked and the response will not be able to be changed.

A red exclamation mark will denote questions that can be retaken.

Students may attempt to correct as many questions as they would like.

• Students have the chance to earn back 50% of the points missed on the exam.

 Note that students are only able to move up one grading category by completing exam corrections (moving from an 'unsatisfactory' to a 'satisfactory' or moving from a 'satisfactory' to a 'strong').

Due dates for the resubmission will be announced via email and D2L for each exam.

The scores on the first attempt (Part 1 + Part 2) and second attempt (Part 1 + Part 2) will be <u>averaged</u> to determine the Final grade on the Exam.

Example Grade Determination:

Attempt 1:

Part 1, attempt 1: 28/35 Part 2, attempt 1: 10/15

Overall attempt 1 score = $\frac{38}{50}$ or 76%

On attempt 1 of the exam, this student earned a "Satisfactory" on the Exam. If they were satisfied with this score, then no further action is needed.

Attempt 2:

Let's pretend that this student decided to complete the second attempt and earned the following grades:

Part 1, attempt 2: 31/35
Part 2, attempt 2: 15/15
Overall attempt 2 score = 46/50 or 92%

Determination of final score on Exam

Final Exam Score = Average of attempt 1 and attempt 2= (38+46)/2= 42/50 or 84%

In this example, the student increased their grade to a 42/50 and now has a grade of "Strong" on the Exam.

2) D2L WEEKLY QUIZZES

The purpose of D2L weekly quizzes is to give students a low-stakes opportunity to assess their understanding of the content. Quizzes should be used as a tool to keep up with content presented weekly in the course and to assist students in preparing for exams.

Students get 5 attempts on each quiz, with the idea that students will study their mistakes and then make an effort to understand and correct those mistakes through resubmitting the quiz with the correct answers.

- A weekly quiz will be administered through D2L that covers information from that week of material (videos and recitation).
- The guiz for the current week of content will open at 8:00 AM on Friday
- Recommended due date: It is recommended to complete quizzes by the following Friday at 5:00PM
 (to complete the content from that week), however Quizzes will not close and will remain open until
 the next exam opens (absolute due date are in yellow highlight within the course schedule).
- Quizzes that have not been completed prior to the start of the exam on that material will receive a grade of "0", or an "Unsatisfactory"
- The quiz will consist of 10 questions (multiple choice, multiselect)
- Quizzes are not timed
- Students will have 5 attempts on the quiz, and only the highest grade will be recorded.

- Quiz attempts do NOT need to be completed at the same time. Attempts must just be completed by the absolute due date.
- Students can review feedback on exams starting at 5:00 PM on the recommended due date as long as they have achieved at least a 70% on one of their attempts by that time. Feedback will open after 5 attempts for all students (regardless of score).
- A short video is available on D2L under "How to Videos" that shows you how to see your quiz feedback. If a student misses a guiz, the guiz answers cannot be reviewed.

I recommend that you study prior to taking each weekly quiz as if you are preparing for an exam.

The first week of class there will be a special quiz covering the syllabus. It is 20 questions. There is no time limit on this quiz. It will also have 5 attempts available.

ASSIGNMENTS- NOT REQUIRED

This section of the syllabus will include details for assignments that will <u>not</u> directly determine your grade and are optional to complete.

Why are they not required?

Let me start by saying that I believe that these assignments are critical to promote student success in the course- so, it's not because I don't think they are important! These assignments are not required because I am making an effort to increase grading equity in my course. Educational research supports that it is not equitable for a student's grade to be determined even in part by their behavior (participation), but rather that grades should only reflect understanding and knowledge of the course content.

You are all adults and are capable of making your own choices regarding how you interact with this course. If you do not see the personal benefit of completing these assignments, then you do not need to concern yourself with these assignments. But it is my honest belief that students should engage with course content as much as possible to support understanding.

I would personally recommend that students complete <u>ALL</u> the following assignments to best support learning of the material and keeping a consistent schedule in the course. I believe that completion of these assignment promotes student success.

2 Types of NOT REQUIRED (but highly encouraged) Assignments:

- 1) Bonus Recitation Worksheets
- 2) Bonus Assignments

Together, these assignments are referred to as **BONUS WORK**. The purpose of these assignments is to provide opportunities for students to continue to practice the course material, reflect on their performance, engage with their peers, and practice scientific inquiry. I will be offering **BONUS WORK** as an incentive for students to engage in these beneficial opportunities.

Students that complete these assignments may be eligible to earn an additional 0.5 added to their grade at the end of the semester. (See Grading Section- BONUS WORK for more details).

1) BONUS RECITATION WORKSHEETS

It is my belief that completion of recitation supports student success in the course. As such, all students are encouraged to complete the recitations weekly and turn them in through Google Classroom. TAs/LAs will comment within the document to answer any questions.

I consider Recitations to be incredibly important within our course. Recitations allow for opportunities for students to practice their critical thinking and problem solving for exams. It is in your best interest to actively complete your recitation assignments and put effort into understanding the recitations. Simply reviewing the keys for the recitation is not as beneficial to understanding as completing them yourself.

Please note that the due dates indicated for Recitation will only be for those that wish to complete BONUS WORK for the class.

Use of Google Classroom

We will be using <u>Google Classroom</u> to complete Recitation Exercises, which will be posted as Google Docs through the MSU Google Apps agreement. Instructors will facilitate these sessions by answering group questions, encouraging discussion, and highlighting the key details.

Recitation assignments will be checked by an instructor for feedback.

Add yourself to the appropriate Google Classroom

- To access Google Classroom, go to https://classroom.google.com/u/0/h and be sure to https://classroom.google.com/u/0/h and be sure to <a href="sign in using you are not signed in, on the page that says, "You need permission," it will tell you which account is being used. Instead of clicking the "Request Access" button, choose to "Switch Account". If your MSU email still doesn't appear, choose "Add Account," and sign in using your MSU username and password.
- Use the "+" sign located on the upper-right hand side of the page to add a class. Enter the following class code: 6hf4mwi
- A video has been uploaded onto D2L that details the process of adding yourself to the appropriate Google Classroom and how to use Google Classroom in recitation. Please watch it if you are having trouble.

Guidelines for Using Google Classroom

- When using Google Classroom, you will complete your answers directly on the Google Doc by typing into the text boxes, uploading images, or editing images. When you finish the document, you will submit it by using the "Turn In" button on the assignment page in Google Classroom.
- Do not submit the Google Doc until you are completely finished. Once you turn it in, you will no longer have editing access for the document. If you turn it in early on accident, the "Turn In" button will change so that you can un-submit it.
- Teaching Assistants will be reviewing each submission for completeness. If it is determined that a student did not put in sufficient effort, then instructors reserve the right to not count the exercise towards Bonus Work.

Bonus Recitation Assignments

- The Recitation assignment will be the focus of our in-person meeting
- Students must bring a laptop, tablet or other computer that will allow them to electronically complete a Google Document if attending the in-person meeting.
- Students will work collaboratively in small groups weekly (up to 5 people per group) to work through the recitation
- Students are encouraged to review and start working on their recitation assignment <u>before</u> attending the in-person meeting.
- Recitations will open on Google Classroom on Friday morning at 8:00 AM and will be due the following Wednesday at 5:00 PM most weeks of class (see schedule).
- Recitations are worksheets that somewhat review the material presented in lecture videos and somewhat introduce new material or primary research articles pertaining to the topics of the week.
- Video Key and Key documents for the recitation exercises will be located on D2L starting after the due date. It is the responsibility of each student to check that their recitation exercise answers are correct against the provided keys.
- If completing recitation as part of Bonus Work, then it is the expectation that recitation worksheets are completed effortfully and in their entirety by the due date.

2) BONUS ASSIGNMENTS

Bonus Assignments require that students complete a short assignment that will allow students to practice answering a couple of questions related to the topics of the week or reflect on course performance.

- These assignments will <u>not</u> be individually graded for correctness but will be checked by an instructor for effortful *completion* and to make sure that the prompt was completed in a satisfactory way.
- Bonus Assignments will be set up as written response quizzes on D2L.
- Bonus Assignments open on Friday at 8:00 AM and are due the following Friday at 5:00 PM (one week later)
- See the Grading section for how Bonus Assignments will be graded

LATE WORK POLICY- LATE PASSES

Please note that there are recommended deadlines for our weekly D2L quizzes for the purpose of 1) keeping students on track over the course of the semester and 2) so that students can complete exams during the indicated time on the course schedule. We have seen how students can quickly get behind on their course work if there are no deadlines for any assignments. In an effort to be more flexible, the due dates for quizzes allow for students to complete quizzes prior to the next exam rather than by weekly due dates.

I understand that sometimes circumstances prevent students from completing assignments by the posted absolute due dates.

To help students in these situations, each student in the course has three 48-hour late passes that can be used to extend the absolute deadline of an assignment (quizzes, bonus recitations, bonus assignments) by 48 hours. Late passes cannot be used on Exams.

Using a Late Pass:

- 1. Student needs to contact Dr. Hedges within <u>48 hours</u> of the missed deadline (preferably prior to the assignment due date) to inform the instructor that they intend to use one of their late passes. **The assignment then must be turned in within the 48 hours window following the absolute due date**.
- 2. Because multiple quizzes have the same absolute due date, if that absolute due date is missed, students may only request an extension for the most recent quiz. Quizzes that had been open and had suggested due dates weeks prior will not be eligible for extensions. Quizzes are meant to be completed weekly, and not done at the last minute before the due date.

- 3. Dr. Hedges will keep track of the number of late passes and record them on D2L for students to see within their grade book.
- 4. If a student has a more serious or long-term problem that prevents them from completing their assignments by the indicated due dates, this needs to be communicated with Dr. Hedges as soon as possible so that alternative arrangements can be made.

If a late pass is not used, then missed assignments will be given a grade of "Unsatisfactory".

GRADING

WHY THIS STRUCTURE?

Research has shown that grades promote extrinsic motivation rather than intrinsic motivation. This means, that for many students, the focus of a class is about earning "X" number of points over the joy of learning and thoroughly understanding the material. My hope is that with this scoring system, that the focus can be placed on learning and practicing scientific skills and improving on those skills from the start of the semester to the end.

I have observed how the focus on earning points can greatly increase stress in students and diminish the learning environment overall. So, in our class I will instead be grading most assignments using a more general scale where performance is categorized into 2 or 3 grading categories (eg. "satisfactory" or "unsatisfactory"). This will allow students to understand whether they are meeting the expectations for the course, while allowing for students to make some mistakes that do not necessarily lower their grade.

To allow students the opportunity to improve their performance, students will have the chance to review and revise their assignments to promote all students reaching a level of satisfactory performance. My hope is that this will allow students to enjoy learning about the topics in the course and better understand the purpose and benefit of the different assignments. Recognizing that student preparedness can vary widely in our course, the overall goal of this structure is to decrease student stress, promote intrinsic student motivation, and provide all students the opportunity to improve their science skills.

Please refer to the "advice from past students" on D2L to read about past students' experiences in this course.

RECITATION GRADING (Total of 12 assignments throughout the semester)

Recitations will be graded as either <u>Satisfactory</u> or <u>Unsatisfactory</u>.

"Satisfactory" submissions must be:

- Turned in on time through Google Classroom
- Submissions must be completed in their entirety
- Every question/prompt/drawing has been completed in an effortful way

If any of the above criteria are not met, then a grade of "Unsatisfactory" will be given.

QUIZ GRADING (Total of 13 quizzes)

Quizzes are 10 questions each (except the first quiz over the syllabus that is 20 questions). Students get **5 attempts on each quiz**, with only the highest score being recorded. Quizzes will be graded as <u>Satisfactory or</u> Unsatisfactory.

To earn a grade of Satisfactory on a quiz:

- The quiz must be completed on time within D2L
- The submission must earn a minimum grade of 70% correct

If any of the above criteria are not met, then a grade of unsatisfactory will be given.

EXAM GRADING (Total of 4 Exams)

Exams will be graded out of 50 "points". These points do not count towards your final grade, but instead will be used to determine what level was achieved on the exam. Exams will be determined to be Strong, Satisfactory, or Unsatisfactory.

To earn a grade of Strong on an exam (and a score of 2):

- The exam must be completed on time within D2L
- The submission must earn a minimum grade of 40/50 (80%)

To earn a grade of Satisfactory on an exam (and a score of 1):

- The exam must be completed on time within D2L
- The submission must earn a minimum grade of 29/50 (58%)

Exams that are not completed on time, or that earn less than 58%, will earn a grade of <u>Unsatisfactory</u> (and a score of 0)

- For each Strong Exam, a student earns a score of 2.
- For each Satisfactory Exam, a student earns a score of 1
- For each Unsatisfactory Exam, a student earns a score of 0

Scores will be used when calculating final grades.

**Students will have the opportunity to review and submit revisions to earn back points lost on their exam with the goal of achieving either a "Strong" or a "Satisfactory grade". (See Exam Corrections)

BONUS WORK GRADING

For a Bonus of 0.5 added to your grade at the end of the semester, students must earn a "Satisfactory" grade on 10/12 Bonus Recitations AND 12/14 Bonus Assignments.

1) Bonus Recitations (12 total assignments)

Bonus Recitations will be graded as either Satisfactory or Unsatisfactory.

Satisfactory submissions must be:

- Turned in on time through D2L
- Submissions must be complete
- Every question/prompt/drawing has been completed in an effortful way

If any of the above criteria are not met, then a grade of <u>Unsatisfactory</u> will be given.

2) Bonus Assignments (14 total assignments)

Bonus Assignments will be graded as either Satisfactory or Unsatisfactory.

Satisfactory submissions must be:

- Turned in on time through D2L
- Submissions must be completed in their entirety
- Every question/prompt/drawing has been completed in an effortful way

If any of the above criteria are not met, then a grade of <u>Unsatisfactory</u> will be given.

**In order for Bonus Work to be applied to your final grade, you must complete all 4 exams in the course.

Final Grades:

- The MSU 4.0 grading system is used report final course grades. Grades for assignments will be posted electronically to D2L within two (2) weeks of the completed assignment/assessment due date.
- Refer to D2L often to determine your progress in the course.
- Instructors are not able to predict the grade that each student will earn in this class prior to the completion of all assignments.
- In order to earn a particular final grade level, a student must meet the minimum requirements in <u>every</u> <u>category listed</u> in the table below. See the sections above for definitions of the different requirements for each grade category.
- Exams will be determined to be Strong (2), Satisfactory (1) or Unsatisfactory (0) AFTER Exam Correction scores have been determined. If students elect to not complete Exam Corrections, then their first attempt score will be determined to be Strong, Satisfactory or Unsatisfactory.

Determination of Final Grades

See the table below for the minimum expectations to achieve each grade in this course as well as an Example Final Grade Calculation. Please keep in mind that you must achieve the minimum in <u>all</u> 3 categories of assessments (recitations, quizzes, exams) in order to earn the grade. Remember, a bump of 0.5 will be given to students at the end of the semester that complete BONUS WORK.

Minimum # of Satisfactory Quizzes (total of 13)	Total Score* from all 4 Exams	Grade in Course
7	8	4.0
7	7	3.5
7	6	3.0
7	5	2.5
7	4	2.0
7	3	1.5
7	2	1.0
7	1	0.5 not passing
6	2	0.5 not passing
>7	>2	0.0 not passing

^{*} Your "Score" on the exam is a 2, 1, or 0 based on the definitions in the syllabus

Note the gray highlighted cells for what qualifies as earning a 0.5 grade (not a passing grade). Students must meet one of the definitions of a 0.5 grade for Bonus Work to bump grade up to a 1.0.

In order for Bonus Work to be applied to a student's grade, the student must complete all 4 exams.

The 0.5 grade boost from Bonus Work will only be applied if the student completes at least 10 out of 12 Bonus Recitations AND 12 out of 14 Bonus Assignments.

Example Final Grade Calculation:

A student has the following grades:

- 2 "Strong" exams, 2 "Satisfactory" exams (Total exam Score = 6)
- 12 "Satisfactory" Quizzes
- Completed 10 Bonus Recitations
- Completed 6 of the Bonus Assignments

In this example the student has enough Satisfactory quizzes to pass the course, and their combined exam scores have given them a grade of a 3.0. The student completed the required number of Bonus Recitations to

earn Bonus Work but <u>did not</u> complete the required number of Bonus Assignments to earn Bonus Work (minimum of 12 Bonus assignments needed to earn bonus work). Therefore, this student earned a 3.0.

CONTESTING GRADES

Students are expected to review their feedback for quizzes, posted keys and posted videos on D2L before bringing their concerns to the instructional team. Honestly self-assess whether you perhaps misunderstood or overlooked something, and if that mistake led to your grade. You are encouraged to contact members of the teaching team to help clarify misunderstandings of the material. If a genuine grading error has been made, it would be appropriate to email or attend office hours to discuss your concern. However, we will not re-grade individual elements of the assignment/exam.

If you believe that the grade you received did not reflect the overall quality of the assignment/exam, you may formally request a re-grade of the entire assignment by Dr. Hedges within 7 days that the grade was posted to D2L. Please email Dr. Hedges stating as such, and that you understand the new grade will stand. It may be lower, higher, or the same as your initial grade.

STATEMENT OF OWNERSHIP

As members of a learning community, students are expected to respect the intellectual property of course instructors. All course materials presented to students are the copyrighted property of the course instructor and are subject to the following conditions of use:

- Students <u>may not</u> post recordings or other course materials online or distribute them to anyone not
 enrolled in the class without the advance written permission of the course instructor and, if applicable,
 any students whose voice or image is included in the recordings.
- Commercialization of lecture notes and university-provided course materials is **not** permitted in this course. This includes posting my materials to Quizlet, Course Hero, Chegg, or similar sites.

Any students violating the conditions described above may face academic disciplinary sanctions, including receiving a penalty grade in the course.

HONORS OPTION

Please see Honors Option module on D2L for details.

TURNITIN- HONORS OPTION:

TurnItIn dropboxes are used for the Honor's writing assignments in this course. "Consistent with MSU's efforts to enhance student learning, foster honesty, and maintain integrity in our academic processes, instructors may use a tool called Turnitin to compare a student's work with multiple sources. The tool compares each student's work with an extensive database of prior publications and papers, providing links to possible matches and a 'similarity score'. The tool does not determine whether plagiarism has occurred or not. Instead, the instructor must make a complete assessment and judge the originality of the student's work. All submissions to this course may be checked using this tool. Students should submit papers to Turnitin

Dropboxes without identifying information included in the paper (e.g. name or student number), the system will automatically show this info to faculty in your course when viewing the submission, but the information will not be retained by Turnitin. Student submissions will be retained only in the MSU repository hosted by Turnitin." (http://learndat.tech.msu.edu/teach/student-writing) Students may also consult the similarity report generated by TurnItIn and may resubmit assignments prior to their due date. The TurnItIn report may be confusing for students to interpret since a high similarity score may simply reflect that other students are submitting documents that contain the same instructions. Thus, you are welcome to attend office hours if you wish to have assistance in interpreting any TurnItIn report.

DIVERSITY STATEMENT

Your experience in this class is important to me. I am committed to providing an inclusive learning environment for all members of our community, where students from diverse backgrounds and perspectives are recognized, respected and seen as a source of strength and a source of enrichment for our intellectual community. I strive to be respectful of diversity in gender, sexuality, disability, age, religion, socioeconomic status, ethnicity, race, and culture. Your suggestions for ways in which these areas in the class can be strengthened are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

We have been living in an unprecedented time and challenges outside of the classroom are at an all-time high. If you are experiencing any type of hardship that may impact your participation and engagement in this class, please reach out. You do not need to share details that you are not comfortable sharing. We can work together to create a plan to move forward.

LAND ACKNOWLEDGEMENT

Michigan State University occupies the ancestral, traditional and contemporary lands of the Anishinaabeg – Three Fires Confederacy of Ojibwe, Odawa and Potawatomi peoples. In particular, the university resides on land ceded in the 1819 Treaty of Saginaw. We recognize Michigan's 12 federally recognized Native Nations, historic Indigenous communities in Michigan, Indigenous individuals and communities who live here now, and those who were forcibly removed from their homelands. In offering this land acknowledgement, we affirm Indigenous sovereignty, history and experiences.

RESOURCES FOR MSU STUDENTS:

<u>The Resource Center for Persons with Disabilities</u> – RCPD offers resources, support, and accommodations to students with disabilities. This can include, but is not limited to, autism spectrum disorders, blindness and visual impairment, brain injury, chronic health disabilities, deaf / hard of hearing, learning disabilities and attention deficit, mobility disabilities psychiatric disabilities, and temporary conditions.

<u>Counseling and Psychiatric Services</u> - CAPS is the place on campus for students seeking help for a wide range of concerns, including depression, anxiety, stress management, homesickness, adjustment or acculturation, relationships, gender identity and sexual orientation (LBGTQ) concerns, substance abuse, trauma, eating or body image concerns, and other personal mental health concerns.

Office of the University Ombudsperson - Whether you are a student, faculty member, or staff, the Office of the University Ombudsperson offers a confidential place to discuss both academic and nonacademic concerns including, administrative issues, workplace issues, or any concern that may relate to Michigan State University students.

The Online Engagement Center, part of the Neighborhood Student Success Collaborative – We promote academic proficiency, institutional navigation and socio-emotional engagement, which support student success. We do this through: Academic advising and academic success coaching, Engagement Center resources, our student success programs (Spartan Success Scholars, DOW STEM Scholars Program, and Detroit M.A.D.E. Scholars Program) and Collaborative Learning Center (where we train peer educators across the university, proivide success skill workshops, and are experts on non-cognitive indicators of academic success)

The <u>Lesbian</u>, <u>Bisexual</u>, <u>Gay</u>, <u>and Transgender Resource Center</u> – We lead and collaborate on university-wide initiatives that prepare students to thrive in our diverse world, and enhance the campus climate and support services for students marginalized by their sexuality or gender identity.

The MSU Food Bank- MSU Student Food Bank was founded to help students who are dealing with food insecurity (having limited food availability with a reduction in the quality or variety of food intake that often results in disrupted eating patterns). A lack of food security can be a considerable obstacle to academic success. The MSU Student Food Bank is a non-profit and serves over 6,000 students, many with families, and distributes over 110,000 pounds of food. See their site about eligibility and use of this service.

REQUESTING A RECOMMENDATION LETTER:

I receive many requests for letters of recommendation, and usually end up writing ~50 letters every year. I will only agree to write letters of recommendation after the semester is complete, and I have observed your performance in the course. Letters of recommendation are important as you pursue various programs. It is in your best interest to ask individuals that know you <u>personally</u> to be letter writers and have verbal assurance from the individual that they can write you a strong and positive letter.

I require that students earn a 4.0 in the course and have a 3.5 GPA overall and that they have demonstrated course engagement by participating in bonus work and interacting with the instructional team. I need at least a six-week notice before the letter is due. You will need to submit your CV or resume, a personal statement, a copy of your transcripts, and a completed questionnaire (that I will send to you after I agree to write the letter). I will be unable to complete letters if the student fails to submit these materials within 2 weeks of the due date of the letter.

HOW TO BE AN LA FOR NEU 301/302:

Students interested in being an LA for 301/302 should contact Dr. Hedges during the spring semester. Students will be asked to fill out a questionnaire. Students will be chosen based on their responses to that questionnaire, demonstrated ability to interact well with their peers during in-person meetings, and demonstrated mastery of the subject matter through performance on assessments. These decisions will be made after the successful completion of both NEU 301 and NEU 302.

MSU POLICIES

RESOURCE CENTER FOR PERSONS WITH DISABILITIES

From the Resource Center for Persons with Disabilities (RCPD): Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at www.rcpd.msu.edu.

Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to Dr. Hedges two weeks prior to the accommodation date. Requests received after this date may not be honored.

Resource Persons with Disabilities (RCPD)

- To make an appointment with a specialist, contact: (517) 353-9642 or TTY: (517) 355-1293
- Web site for RCPD: http://MYProfile.rcpd.msu.edu

ATTENDANCE:

Students are expected to participate in all course activities. See the Ombudsperson's web site for a discussion of student observance of major religious holidays, student-athlete participation in athletic competition, student participation in university-approved field trips, medical excuses and dean's drop for students who fail to attend class sessions at the beginning of the semester.

THE SPARTAN CODE OF HONOR ACADEMIC PLEDGE:

"As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing to endeavor to build personal integrity in all that I do."

ACADEMIC INTEGRITY

The "Academic Freedom for Students at Michigan State University" document (found at http://splife.studentlife.msu.edu) is a legal document that you, as a member of the MSU community, should be familiar with. The welcome letter at the beginning reads, in part:

"As an academic community, it is necessary to set standards that will promote an environment conducive to learning The first part of the Spartan Life presents the policies, regulations and guidelines developed to provide an atmosphere that furthers opportunities for intellectual and personal development while protecting individual freedoms. As a student you are encouraged to exercise your rights and you are expected to meet your responsibility to adhere to the standards set. The second part of this guide serves to inform you of the

rules, regulations, rights and responsibilities that have been established in the interest of all member of the University community."

Academic misconduct, including but not limited to plagiarizing, cheating, and submitting falsified data will not be tolerated in this course. Individual student assignments that contain portions that are deemed by Dr. Hedges to be highly similar to an assignment submitted by another student in current or previous semesters or to an internet or published source may be considered a violation of academic integrity. See "Section 1.00 PROTECTION OF SCHOLARSHIP AND GRADES and Student Academic Integrity FAQs" for detailed information about definitions of academic integrity, examples of misconduct, and advice about how to avoid it.

In this class, you are NOT permitted to share answers or materials with other students (past, present or future) nor are you permitted to collaborate on any quizzes or assignments in this course with any other students (past, present, or future). You are not allowed to obtain assignments from another student enrolled in the current or a previous semester. When required to use information from published papers or other sources, it must be re-stated in your own words and cited as specified in class.

Suspected violations of the MSU policies will result in a meeting with Dr. Hedges, Dr. Cox, and Dr. Olson. Depending on the severity of the violation, penalties for academic dishonesty may range from 0 points for an item on the assignment, to 0 points for the entire assignment, to a failing grade for the class. If a penalty grade is administered, Dr. Hedges is required to submit an academic dishonesty report to the university, which will be added to the student's record. The student will be required to complete a course on academic integrity, and the Dean may choose to impose other sanctions. Providing your completed assignments and answers to quizzes and assignments, to other students currently enrolled in NEU301 or those who may take NEU301 in the future is considered a violation of academic integrity and may subject you to sanctions by the university even if you are no longer enrolled in the class.

TITLE IX: OUR COMMITMENT:

"Michigan State University is committed to fostering a culture of caring and respect that is free of relationship violence and sexual misconduct, and to ensuring that all affected individuals have access to services. For information on reporting options, confidential advocacy and support resources, university policies and procedures, or how to make a difference on campus, visit the Title IX website."

LIMITED CONFIDENTIALITY:

"Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, may not be able to maintain confidentiality when it conflicts with their responsibility to report certain issues to protect the health and safety of MSU community members and others. As the instructor, I must report the following information to other University offices (including the Department of Police and Public Safety) if you share it with me (in writing or in person), if I overhear it from others, or if I am informed by others:

- --Suspected child abuse/neglect, even if this maltreatment happened when you were a child
- --Allegations of sexual assault or sexual harassment when they involve MSU students, faculty, or staff

--Credible threats of harm to oneself or to others

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like to talk about these events in a more confidential setting you are encouraged to make an appointment with the MSU Counseling Center." http://oie.msu.edu/mandatory-reporting.html

GRIEF ABSENCE POLICY

The faculty and staff should be sensitive to and accommodate the bereavement process of a student who has lost a family member or who is experiencing emotional distress from a similar tragedy so that the student is not academically disadvantaged in their classes or other academic work (e.g. research). For undergraduate students it is the responsibility of the student to: a) notify the Associate Dean or designee of their college by completing the grief absence request form https://reg.msu.edu/StuForms/Stuinfo/GriefAbsenceForm.aspx in a timely manner, but no later than one week from the student's initial knowledge of the situation, b) provide appropriate verification of the grief absence as specified by the Associate Dean, and c) complete all missed work as determined in consultation with the instructor. It is the responsibility of the Associate Dean or designee to: a) determine with the student the expected period of absence – it is expected that some bereavement processes may be more extensive than others depending on individual circumstances, b) notify the faculty that the student will be absent, and c) receive verification of the authenticity of a grief absence request upon the student's return. It is the responsibility of the instructor to work with the student to make reasonable accommodations and to include appropriate language describing such accommodations in their course syllabus, so that the student is not penalized due to a verified grief absence. Students who believe their rights under this policy have been violated should contact the MSU Office of the University Ombudsperson for information on the academic grievance procedures.

DISRUPTIVE BEHAVIOR

Article 2.III.B.4 of the Student Rights and Responsibilities (SRR) for students at Michigan State University states:

"The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned."

Article 2.III.B.10 of the SRR states that

"The student and the faculty share the responsibility for maintaining professional relationships based on mutual trust and civility."

General Student Regulation 5.02 states:

"No student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . .) such that the function or service is obstructed or disrupted."

Students whose conduct adversely affects the learning environment in this classroom may be subject to disciplinary action.

Found in <u>Student Rights and Responsibilities</u> opens in new window

COURSE DROPS AND ADDS

Can be found on the academic calendar at: https://reg.msu.edu/ROInfo/Calendar/academic.aspx

COURSE SCHEDULE: NEU 301 Fall 2022

Refer to the course calendar (below) for a schedule of topic dates and due dates. Activity and assignment details will be explained in detail within each week's corresponding learning module (week) of the course. If you have any questions, please contact your instructor.

Readings are from our course Open Educational Resource that is freely available to students: <u>Introduction to Neuroscience – Simple Book</u>
 <u>Publishing (msu.edu)</u>. Be aware that you can download the book in different formats, or have it printed through the MSU Library for a nominal fee

Exams are all online through D2L. Note opening and closing dates/times on schedule.

The weekly Quiz due dates noted on the schedule are recommended to stay on track in the course. However, quizzes are only due on the Absolute due date indicated below in yellow highlight.

Week	Dates	Topic	Reading: Introduction to Neuroscience	Weds class meeting- Recitation *Due dates are only for those wishing to earn Bonus Work	*Due dates are only for those wishing to earn Bonus Work	Quizzes/ Exams *Weekly due dates are suggested. Absolute due dates are in yellow highlight
1	Weds 8/31- Fri 9/2	Class Introduction	Chapter 1	NO IN-PERSON MEETING (MSU observes Monday schedule) Week 1 Recitation and Grade Agreement Due by 9/7/22 @5:00 PM	DUE 9/9 @5:00 PM Week 1 Bonus Assignment	DUE 9/9 @5:00 PM Week 1 Quiz (over syllabus)
2	Friday 9/2- Friday 9/9 Labor Day 9/5	Unit 1: Neurons and Glia	Chapters 2, 3, 4	Date: 9/7/22 Week 2 Recitation Due @5:00pm	DUE 9/9 @5:00PM Week 2 Bonus Assignment	DUE 9/9 @5:00 PM Week 2 Quiz
3	Friday 9/9- Friday 9/16	Unit 2: Resting Membrane Potential	Chapters 5, 6, 7	Date: 9/14/22 Week 3 Recitation Due @5:00pm	DUE 9/16 @5:00 PM Week 3 Bonus Assignment	DUE 9/16 @5:00 PM Week 3 Quiz

Week	Dates	Topic	Reading: Introduction to Neuroscience	Weds class meeting- Recitation *Due dates are only for those wishing to earn Bonus Work	Bonus Assignment *Due dates are only for those wishing to earn Bonus Work	Quizzes/ Exams *Weekly due dates are suggested. Absolute due dates are in yellow highlight
4	Friday 9/16- Friday 9/23	Unit 3: Action Potential	Chapters 8, 9, 10	Date: 9/21/22 Week 4 Recitation Due @5:00pm	DUE 9/23 @5:00 PM Week 4 Bonus Work	DUE 9/23 @5:00 PM Week 4 Quiz EXAM 1 9/23-9/26 Open Friday at 8:00 AM through Monday at 12:00 PM (noon) DUE 9/23 at 5:00 PM Absolute Due Date for Week 1, 2, 3, 4 Quizzes
5	Friday 9/23- Friday 9/30	Unit 4: Synaptic Transmission	Chapters 11, 12	Date: 9/28/22 Week 5 Recitation @5:00 PM	DUE 9/30 @5:00 PM Week 5 Bonus Work	DUE 9/30 @5:00 PM Week 5 Quiz
6	Friday 9/30- Friday 10/7	Unit 5: Neurotransmitters	Chapters 13, 14, 15, 16, 17, 18, 19, 20	Date: 10/5/22 Week 6 Recitation Due @5:00pm	Due 10/7 @5:00 PM Week 6 Bonus Work	Due 10/7 @5:00 PM Week 6 Quiz
7	Friday 10/7- Friday 10/14	Unit 6: CNS Anatomy	Chapters 20, 21, 22, 23, 24, 25	Date: 10/12/22 Week 7 Recitation Due @5:00pm	DUE 10/14 @5:00 PM Week 7 Bonus Work	DUE 10/14 @5:00 PM Week 7 Quiz
8	Friday 10/14- Friday 10/21	Unit 6 continued	Chapters 20, 21, 22, 23, 24, 25	Date: 10/19/22 NO IN-PERSON MEETING OR RECITATION	DUE 10/21 @5:00 PM Week 8 Bonus Work	EXAM 2 10/19-10/21 Open Weds at 8:00am through Friday at 8:00am DUE 10/19 at 5:00 PM Absolute Due Date for Week 5, 6, 7 Quizzes

Week	Dates	Topic	Reading: Introduction to Neuroscience	Weds class meeting- Recitation *Due dates are only for those wishing to earn Bonus Work	Bonus Assignment *Due dates are only for those wishing to earn Bonus Work	Quizzes/ Exams *Weekly due dates are suggested. Absolute due dates are in yellow highlight
9	Friday 10/21- Friday 10/28 Fall Break 10/24-10/25	Unit 7: Peripheral Nervous System	Chapters 26, 27	Date: 10/26/22 Week 9 Recitation DUE @5:00 PM	Due 10/28 @5:00 PM Week 9 Bonus Work	Due 10/28 @5:00 PM Week 9 Quiz
10	Friday 10/28- Friday 11/4	Unit 8: Visual System: The Eye	Chapter 28, 29	Date:11/2/22 Week 10 Recitation DUE @5:00 PM	DUE 11/4 @5:00 PM Week 10 Bonus Work	DUE 11/4 @5:00 PM Week 10 Quiz
11	Friday 11/4- Friday 11/11	Unit 8: Visual System: Central Visual Systems	Chapter 30	Date:11/9/22 Week 11 Recitation DUE @5:00 PM	DUE 11/11 @5:00 PM Week 11 Bonus Work	DUE 11/11 @5:00 PM Week 11 Quiz
12	Friday 11/11- Friday 11/18	Unit 8: Visual System: Central Visual Systems Systems cont.	Chapter 30	Date: 11/16/22 NO IN-PERSON MEETING OR RECITATION ©	DUE 11/18 @5:00 PM Week 12 Bonus Work	EXAM 3 11/16-11/18 Open Weds @8:00am through Friday @8:00am DUE 11/16 at 5:00 PM Absolute Due Date for Week 9, 10, 11 Quizzes
13	Friday 11/18- Friday 11/25 (Thanksgiving Week)	Unit 9: Auditory System	Chapter 31, 32	Date: 11/23/22 NO IN-PERSON MEETING OR RECITATION ♥	NONE	DUE 11/25 @5:00 PM Week 13 Quiz
14	Friday 11/25- Friday 12/2	Unit 9: Auditory System cont.	Chapter 31, 32, 33	Date: 11/30/22	DUE 12/2 @5:00 PM	DUE 12/2 @5:00 PM

Week	Dates	Topic	Reading: Introduction to Neuroscience	Weds class meeting- Recitation *Due dates are only for those wishing to earn Bonus Work	Bonus Assignment *Due dates are only for those wishing to earn Bonus Work	Quizzes/ Exams *Weekly due dates are suggested. Absolute due dates are in yellow highlight
		Unit 10: Vestibular System		Week 14 Recitation DUE @5:00 PM	Week 14 Bonus Work	Week 14 Quiz
15	Friday 12/2- Friday 12/9	Unit 10: Olfactory System Unit 11: Gustatory System	Chapter 34, 35	Date: 12/7/22 Week 15 Recitation DUE @5:00PM	DUE 12/9 @5:00 PM Week 15 Bonus Work	DUE 12/9 @5:00 PM Week 15 Quiz
16 FINALS WEEK	Mon 12/12- Friday 12/16			NO IN-PERSON MEETING OR RECITATION	NONE	EXAM 4 Open Monday at 8:00am through Thursday at 5:00pm DUE 12/12 at 5:00 PM Absolute Due Date for Week 13, 14, 15 Quizzes