

**Bisc 327, Introductory Neuroscience, Spring 2020**  
**Shoemaker Rm 408, T-Th 1:00-2:15**  
**Professor: Dr. Lainy Day, 512 Shoemaker Hall, [lainyday@olemiss.edu](mailto:lainyday@olemiss.edu)**  
**Office Hours Tu 3-4, Th 3-4**

**Course Materials:**

Text: The latest edition of your textbook is Behavioral Neuroscience, 8<sup>th</sup> ed., S. M. Breedlove and N. V. Watson. To access online quizzes, tutorials and animations, you would need to purchase the most recent version. News articles related to topics are still free on the website at last check. In addition to the 8<sup>th</sup> edition, I have also listed in the syllabus the chapters and page numbers for the 7<sup>th</sup> ed., Biological Psychology: An introduction to behavioral, cognitive, and clinical neuroscience, S. M. Breedlove and N. V. Watson. You may also use the 6<sup>th</sup> edition of this textbook, but pages will be off a bit from what I have in the syllabus. You will be responsible for determining the correct pages. One section is missing from the 6<sup>th</sup> edition that is in the 7<sup>th</sup> and 8<sup>th</sup>, but the missing content will be in my slides and I will go over these materials in class. You may check out the 7<sup>th</sup> and 6<sup>th</sup> editions from the library reserves.

Additional Reading of short articles will regularly be assigned in addition to your textbook chapters. Check blackboard for assignments and the sections with which the articles are associated.

TurningTechnologies accounts and a clicker response device are required for exams and in-class quizzes. Phones and laptops cannot be used. There are about 55 response devices available for check-out for the semester from the library reserves desk. These devices do not have a QWERTY keyboard, but we will rarely have answers that are more than three letters making alphanumeric texting easy. Clickers and subscriptions are available at the bookstore and through <https://www.turningtechnologies.com/>. If you check out a clicker from the library, be aware that you will get notices saying the item is due, but you can ignore these.

**The Course:**

This course is an introduction to how nerve cells work singly and in concert to guide the behavior of animals. We will take a comparative approach to understand how brains have evolved to allow animals to perceive stimuli, maintain cycles of arousal, adopt particular mating strategies, learn and guide behavior, and communicate. We will also talk about variation in individual animal's abilities to cope with a range of environmental and social stimuli by means of learning and epigenetics.

Learning Objectives: 1) In first part of this course students should develop a basic understanding of the history and scope of neuroscience, how nerve cells work, how brains are divided into functional units, and how evolution and development shape the nervous system. 2) In the second part of the course students will learn that the nervous system filters external stimuli, processes information, and guides behavioral output. 3) Outside readings will help students to relate the text to current discoveries, politics, and the natural world. 4) We will explore some ideas in writing and use case studies to develop an understanding of certain topics.

**Scoring Performance:**

I want every student to earn the grade they want achieve and I want to earn your five star teacher evaluation for the course. Let us help each other to do so.

I am here to educate, ask questions when you don't understand.

I am here to guide you, if you need suggestions for how to take notes, read materials, or study do not hesitate to ask.

I am here to help, ask me for the assistance you need.

You are here to gain knowledge, I have office hours to serve you.

You are here to learn critical thinking, I will provide writing and thinking exercises to assist.

You are here to matriculate and move on to a career, I have created pathways for you to perform at your desired level of achievement.

Four exams are required. You will have three, 50 question in-class exams, and a 100 question comprehensive final. Use my lectures as a guide to exam content and the textbook to provide a cogent narrative and as a reference resource. Very few questions touched on only in the textbook will be tested.

Make-up Exams will only be given for reasonable and documented excuses at the discretion of the professor. You must inform me of your absence **the day of the exam or before unless there is a legal or medical emergency.** Make-up exams will cover the same material as that given during the scheduled exam but will not contain the same questions.

Class Attendance is not graded directly, but is strongly recommend. I do not, however, suggest coming to school ill. This is an upper-division course; it is up to you to determine your own priorities. University attendance policy for the first two weeks is below.

Attendance First Two Weeks: The University must comply with federal mandates that require us to submit attendance reports for the first two weeks of class. Unless you have some special exception such as personal or family health issues or University based excursions that will keep you out of class the first two weeks of school, you must be certain to attend class at least once during the first two weeks or you will be dropped from the class. Attendance will be verified by scanning IDs as you enter the class.

Class Participation: When in class, I expect your full attention. For each day that all students place their phones at the front of the classroom when they enter class, all students will earn 1 extra credit point a week up to 10 points or 2% points of your letter grade. If you have an urgent matter that requires your phone (e.g. sick kid at home, dying pet at vet, med school interview) let me know when you enter class and put your phone in your lap or pocket on silent and the class will not be penalized. Unfortunately, the inability of some to avoid checking updates on TikTok, shopping on Amazon, and such as well as the consternation of others that I expect students to show respect by using computers only for class purposes means that no computers are allowed in the classroom without establishing such a need from SDS or requesting special permission from me. I previously allowed computers for note taking only, but students said that I should not allow computers if I expected students to use them only for note taking. So, I apologize if this is your preferred method. I will provide neuroscientific evidence to substantiate the use of taking notes by paper. This method can be mimicked on a computer, but I can no longer allow computers in the classroom.

In-class Clicker Questions will earn Extra Credit. It pays to show up for class prepared. Read the assigned readings, complete assigned exercises, and pay attention to lectures to earn extra credit quiz points. Each clicker question will add extra credit towards your overall grade. Incorrect quiz questions will not count against your overall grade. The number, frequency and timing of quizzes are at the discretion of the instructor, but students need to be ready for a quiz every time class meets. Quiz points cannot be made up. Not all questions earn points; some are for survey or intellectual purposes only. The professor will notify you when this is the case. You can earn up to 5% points to your final grade (a 78 can become an 82) over the semester with every 5 questions adding 1% point. If you have a long-term illness, miss class regularly for University required events, or have a disability that interferes with clicker use, I will arrange an alternative extra-credit assignment for you.

**To participate in a quiz, you must have a TurningTechnologies account and clicker. If you forget your clicker, you will not be able to earn quiz points that day. No exceptions.**

I do my best to write probing quiz questions with clear and distinct answers. These questions are rewritten each semester based on our progress through lectures, what material students are having trouble with, and unique material covered. The questions are provided not only to keep you motivated to stay current with reading and studying, but also to allow you a friendly pathway that you can make up for low test scores by staying current with wherever we are in covering course materials and making an effort to absorb the material. Although you only get points for correct answers, I do record if you tried. Given that questions are continuously being road tested each semester, they are not always perfect. I will throw out any problem questions. I am happy to hear your suggestions for how to improve questions; I am also happy to stop giving extra credit if I am badgered over questions.

**Disability Access and Inclusion:** The University of Mississippi is committed to the creation of inclusive learning environments for all students. If there are aspects of the instruction or design of this course that result in barriers to your full inclusion and participation, or to accurate assessment of your achievement, please contact the course instructor as soon as possible. Barriers may include, but are not necessarily limited to, timed exams and in-class assignments, difficulty with the acquisition of lecture content, inaccessible web content, and the use of non-captioned or non-transcribed video and audio files. If you are approved through SDS, you must log in to your Rebel Access portal at <https://sds.olemiss.edu> to request approved accommodations. If you are NOT approved through SDS, you must contact Student Disability Services at [662-915-7128](tel:662-915-7128) so the office can: 1. determine your eligibility for accommodations, 2. disseminate to your instructors a Faculty Notification Letter, 3. facilitate the removal of barriers, and 4. ensure you have equal access to the same opportunities for success that are available to all students.

\* If my course materials do not meet needs that may not be obvious or recorded in your record (e.g. being color blind) please let me know and I will hasten the restructuring of my materials for this specific need as we all work towards materials that are inclusive for all.

### **Grade Assignment:**

My ideal grading system is one that allows for rewarding of effort and talent while encouraging students to strive for their personal best and establishing a minimal baseline for meeting course objectives. I offer sufficient extra credit to offset some errors in studying, planning, and the random life events that can make for academic difficulties. As I have worked to improve my grading system to meet this ideal, I have found that making it easy to make an A is not appreciated. I have found that students ranked at the 58<sup>th</sup> percentile among their peers that have been given a very liberal A- grade will still argue that they should have been given an A or believe that they are high achieving. I wish I could just do away with grades and each of you would aim for your absolute best learning, but not everyone is motivated this way. I also do not want students who are caught in any one of the various scenarios that can adversely effect grades despite effective learning of materials, such as poor test taking skills, a job that requires late nights, a stupid relationship that is messing with your emotions, personal tragedies, etc., to cause you to lose your course for matriculation/graduation. Thus, I have designed your grading system so that the majority of students are likely to earn between a C and a B+ if they put in reasonable effort. For each exam, I will report your grades in 10 point brackets (100-90, 89-80, etc.), but grade

assignments will follow the levels below. It is not exactly a “curve” as I don’t want you to feel like you are competing against your fellow students. Instead, I provide a means for students willing to put in the extra effort to achieve accordingly and for those students struggling to achieve a passing score to manage to do so, within reason. Please ask me during office hours if you need further explanation. Remember, the goal is to get you to do your personal best rather than aim for a score and to make sure all students have learned the basics to add this course to your curriculum as a passed course.

Letter grade ranges based on class rank are as follows, see below for exam score minimums:

	A	A-	B+	B	C+	C	C-	D	F
Class Rank	About the top 5%	6-10%	11-15%	16-50%	51-75%	76-90%	Bottom 10%	Bottom 5%	Bottom 1%
Exam Scores		Min of ~ 430			Min 350	Min 300			

Notice that the minimums are based on exam scores only. To earn an A- you must have at least 430/500 or 86% on your exams. You can move your ranking up by surpassing the 86% mark with improved exam scores or extra credit. If several students have similar top scores (89.5, 89.9), I will examine how substantial the divide is among groups of students rather than assigning absolute rank to determine letter grades. In other words, if 1 student has a 160% (did perfect on exams and tons of extra credit) and the next ranked student has a 140%, I will be happy to give both students As. If, two students are at the border of the 15-16% ranking, and one student made 80% on exams and used extra credit to get to 95% and the next ranked student made a 70% on exams and used extra credit to pull their score up to a 80%, I will feel that the first student earned a B+ while the second earned a B. The ranking method is meant to reward those who achieve the highest scores on base exams combined with extra credit so that extra credit can increase your grade only once you have met the minimums for that grade rank. Oddly, this process seems to be rather organic in that students naturally cluster in groups with clear cut offs based on total points and exam scores. To earn a C you must have at least 300 of 500 exam points or 60% of exam points. Thus, you can use extra credit to move your score up into the typical 70% and above of all course points that earn a C, but to earn the C grade you must have at least 60% score on exams and be in the top 90% of the class (only 10% scored below you). To earn a C+ is more challenging, you need to have at least a 70% on exams to achieve this grade, this is above “just passing” and I would want you to have at least the minimal score of 70% on exams to feel you earned a C+. You can, of course, make 70% on exams and use the extra credit to pull you up to a more competitive ranking among your peers.

The idea of not assigning minimums to the next few categories is to allow you to use extra credit to move C exam scores up as high as you can with extra credit (about 50 points with clicker points, writing participation, and giving up your phone during the course) without discouraging you from working towards the maximum grade level possible for exams. For example, if you made only 270/500 on exams (only 54%), you could earn sufficient points to move up the ranks and end with a 62% for the course and likely have a C-.

We will use the +/- grading scale in this class (<http://www.olemiss.edu/info/grading.html>). Cut offs for + and - will be based on the rankings above. If you have questions about your scores on any exams, feel free to ask about them. However, **all questions about each exam must be resolved before the following exam.**

<u>Assignment</u>	<u>Points</u>
Exam 1- 50 questions, 2 points each	100
Exam 2- 50 questions, 2 points each	100
Exam 3- 50 questions, 2 points each	100
Final Exam- 100 questions, 2 points each	200
Total =	500
Quizzes provide up to 5 percentage points as extra credit (90=95, 82=87)	25
Participation in creative writing and study assignments in and out of class up to 2 percentage points as extra credit	10
Putting your phones away, 0.5 points per day up to 2 percentage points.	10

To do well in this course you must come to class, pay attention, ask questions, take notes, review and summarize your notes, make sure you understand concepts and memorize facts, read your book chapters and use your book to assist you with anything you are unsure about from lectures. Do not just skim the chapters. Take notes while you read and flesh out your notes from lectures. You are supposed to spend three hours studying outside of class for every hour in class. That means that you should spend about 9 hours a week studying for this class. Take advantage of office hours before exams. It is very hard to bring a grade back up from a failed first exam. If you are not answering the majority of in class quiz questions correctly, it is unlikely you will do well on the exam without changing your study habits. Come see me.

**Scheduling:** Syllabus schedule of topics is subject to change. Every group of students is different. Based on the groups interests and level of understanding we may spend more or less time on any topic. Exam times will only change if we are extremely far behind or for unforeseen circumstances such as weather or illness. Each exam will only cover the topics that have been reviewed in class.

Full course schedule will be available on Blackboard the first Thursday of the course.

