PSYC 373: Biopsychology Lab (Online)
Fall 2021

Instructor Information
Instructor: Nicholas Gazzia
Email: ngazzia@gmu.edu
Office Hours: W 12:00 – 1:00 PM
Office Location: Zoom (link on blackboard)

COURSE DESCRIPTION

Biopsychology is a biological approach to understanding behavior and mental processes. The study of nervous system structure and function is a key part of biopsychology. The primary goal of this lab is for students to become familiar with the location and function of various brain structures through short lectures and dissections. The last part of the semester will introduce students to behavioral and cognitive neuroscience research approaches.

This course will consist of a series of lecture/demonstration videos, dissections, weekly assignments, quizzes, and lab practicals. All work is to be submitted online via Blackboard. The course is asynchronous, meaning that you may complete all assigned tasks at your own pace (i.e., there are no required virtual or in-person meeting times). However, there are weekly deadlines. All course tasks are described in detail below.

Optional text: Cooley, R. K., & Vanderwolf, C.H. (2001). The Sheep Brain: A Basic Guide. A.J. Kirby Co.: London.

Additional readings: Additional readings will be distributed via Blackboard. Students are expected to complete the readings prior to class, especially for lab activities and software downloads.

Dissections: Since this is an ONLINE class, dissections of sheep brains and eyes will be recorded to watch but cannot be performed by the students.

COURSE LEARNING OUTCOMES
By the end of the course, you should be able to:

1. Describe the basic layout and major divisions of the nervous system.
2. Locate the major structures of the mammalian brain and eye.
3. Describe the function of major brain and eye structures as they relate to behavior and cognition.
4. Analyze and interpret results from guided activities using online simulations or datasets.

Lab Requirements
Lab Practical Exams: These exams consist of identification and/or questions regarding pinned brain structures. **There will be no make-ups for a missed practical unless you have obtained my approval.** You MUST let me know well in advance that you will miss a practical. If you are sick or have an emergency, then you must let me know ASAP. If you are sick or have an emergency, then you must let me know ASAP.

- Practical I will cover Brain Tours I & II and is worth 15% of your grade
- Practical II is a cumulative final and is worth 25% of your grade

Practicals will be available on Mondays from 7:00 am until 9:00 pm (refer to calendar for exact dates).

Quizzes: There will be two (2) quizzes and will be based on lecture material covered in class. These quizzes will not require identification of brain structures as observed through dissection. Quiz questions can take the form of multiple choice, true/false, fill-in-the-blanks, labeling a diagram, and/or short-answer format. Missed quizzes will receive a 0 and cannot be made up. Quizzes will be open from Monday at 7:00am (when lectures are posted) until Sundays at 11:59pm (of the same week).

- 10% each
- 20% total

Lab Reports: students will complete eight (8) lab reports throughout the semester covering all the class topics. These lab reports will be due via a provided Blackboard at 11:59pm on the due date (Sunday before the next lecture is posted). Reports that are not submitted by the deadline will not be graded and will receive a 0.

- 5% each
- 40% total

Policy Regarding Late Assignments: Permission to postpone a quiz or to turn in an assignment late will only be given for very important and acute reasons. Any make-up quiz will be structured like the original, but the content will be different. The student must obtain written medical documentation or provide justification for an absence from a quiz or other assignment. Any documentation required for excused absences MUST be turned in by the following lab period. If this documentation is not received in a timely manner, then the assignment will not be graded and will receive a 0.

Policy Regarding "Curving" and Extra Credit: I will curve only on practicals if the highest grade is not a 100. If I decide to create an extra credit assignment, the details about it will be sent out via Blackboard announcement. Otherwise, do not ask me for additional extra credit or a chance to redo an assignment for a better grade. I will say no.

The GMU Honor Code will be Strictly enforced: Students are required to complete their own work – plagiarism, cheating, and copying other students' work will not be tolerated. Information that is used from an outside source must be cited in correct APA or JNeurosci format. Cheating and plagiarism will be reported to the University Honor Board.

Official Communications via GMU E-Mail: Mason uses electronic mail to provide official information to students. Examples include communications from course instructors, notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly. In the event that class is cancelled, then I will notify students via email, and I will reorganize the class schedule in order to address all material. Due dates for quizzes, practicals, and/or assignments will be changed if necessary.

Technology Statement: Required knowledge of technology for this course includes ability to retrieve handouts sent via email to your GMU address or posted on Blackboard (mymason.gmu.edu). Occasionally I may use computer programs or the Internet in class to present demonstrations of

relevant material. You may also wish to use websites provided by me to study for the lab practical exams.

Students With Disabilities: If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through the DRC.

Please note that this course requires active participation in dissection of animal tissue (brain and eye) preserved in fixative as well as potential carcinogenic/teratogenic chemicals that are commonly used in histology. If you have a concern about this, or cannot participate for some reason, please meet with me as soon as possible.

A+ (97 – 100%); A (93 – 96%); A- (90 – 92%); B+ (87 – 89%); B (83 – 86%); B- (80 – 82%);
C+ (77 – 79%); C (73 – 76%); C- (70 – 72%); D (60 – 69%); F (59% and below)

Important dates:
Last day to add classes: August 30, 2021
Last day to drop with no tuition penalty: September 7, 2021

COURSE SCHEDULE

NOTE: You are responsible for knowing about all announcements and any syllabus modifications made via Blackboard and/or email.

Week	**Tentative Course Schedule:**	**Assignments Due (SUNDAY):**
August 23	Introduction: Neurophysiology (lecture 1)	
August 30	Action potential/postsynaptic potential (lecture 2)	**Quiz 1:** Neurophysiology: AP/PSP (lectures 1 & 2) Lab report 1 due—9/5 @ 11:59pm
September 6	Behavioral neuroscience	Lab report 2 due—9/12 @ 11:59pm
September 13	Histology	Lab report 3 due—9/19 @ 11:59pm
September 20	Brain tour I: Surface identification & dura mater dissection (lecture 3)	Lab report 4 due—9/26 @ 11:59pm
September 27	Brain tour II: Cranial nerves dissection (lecture 4)	Lab report 5 due—10/3@ 11:59pm Optional: Lecture 3 & 4 review
October 4	Review (lectures 3 & 4)	
October 11	**Lab practical I (lectures 3 & 4)**	**MONDAY** 10/11: Open from 7am—9pm

October 18	Visual system & sheep eyeball dissection (lecture 5)	**Quiz 2:** Visual system (lecture 5) Lab report 6 due—10/24 @11:59pm
October 25	Midsagittal dissection (lecture 6)	Lab report 7 due—10/31 @11:59pm
November 1	Coronal dissection (lecture 7)	Lab report 8 due—11/7 @11:59pm Optional: Lecture 5 & 6 review
November 8	Review (lectures 6 & 7)	
November 15	**Lab Practical II (CUMULATIVE: lectures 3 – 6)**	**MONDAY** 11/15: Open from 7am—9pm
November 22	Thanksgiving	No Class
November 29	TBD	