PSYC 373-2D2: Biopsychology Lab
Spring 2022

Instructor: Erin N. Doherty
Email: edohert2@gmu.edu
Virtual Office Hours: Email for appt.

Goals of Lab: The primary goal of this lab is for students to become familiar with brain structure and function through lectures and observed dissections. The course will begin with a broad survey of cellular neuroscience and then proceed with an in-depth overview of the sheep brain and eye, with particular attention to structures and functional anatomy. The applied portion of the course will be a broad survey of behavioral neuroscience, histology/microscopy, cognitive neuroscience, and electroencephalography (EEG).

Technology Statement: As all course materials are to be delivered virtually, it is required that you have access to your GMU email and Blackboard account (mymason.gmu.edu). I may occasionally use computer programs or the Internet to present demonstrations of relevant material. You may also wish to use websites provided by me to study for the lab practical exams.

Lectures: Videos for recorded lectures and dissection demonstrations will be posted to the “Course Content” tab on Blackboard; weekly content will become available by the date listed in the course schedule. You will be responsible for watching the videos, as well as retrieving and uploading assignments through your Blackboard account. If you have any questions or concerns about using Blackboard, please consult the university’s support page—https://its.gmu.edu/article-categories/teaching-learning—or email me as soon as possible.

Lab Practical Exams: These exams will consist of virtual identification and/or questions regarding brain structures that you observe from the recorded dissections. There will be no make-ups for missed exams unless you have obtained my approval. You must let me know well in advance that you will miss an exam. If you are ill or have an emergency, then you must let me know ASAP.

Practical Exam I will cover Brain Tours I & II and is worth 15% of your grade.
Practical Exam II is a cumulative final, and is worth 25% of your grade.
I will administer an exam review session for each “lecture” that precedes an exam date.

How to Take a Blackboard Exam: Exams will become available in the Blackboard “Exams” section, beginning on the date specified in the Course Schedule (page 3). Once you open the exam, you are being timed and will only have 90 minutes to complete and submit. The day/time at which you choose to start this is at your discretion, but note that exam availability will close at the end on the week (Fridays by 9:00 PM), i.e., you will not have the full 90 minutes if you decide to start any later than 7:30 PM that Friday. Exams not received in time will be given a grade of 0, so please mark your calendars and regularly check your email for information!

Quizzes: The quizzes will be based on posted lecture material. These quizzes will not require identification of brain structures observed through the recorded dissections (this content will be for exams only). Quiz pages will be found in the “Quizzes” tab on Blackboard. Questions may take the form of multiple choice, true/false, fill-in-the-blanks, labeling a diagram, and/or short-answer format. Like the exams, quizzes will be administered within a designated time constraint. Quizzes will be brief, with significantly less content than exams, so you will be given 30 minutes to complete and submit a quiz via Blackboard. Once time expires, the quiz will auto-submit. If you have missed a quiz, then you will NOT be able to make it up.

Lab Reports: Students will complete four lab reports on the following material: (1) action potential simulations, (2) color perception and blind spots, (3) behavioral neuroscience and histology, and (4) cognitive neuroscience and EEG. These lab reports are to be submitted via the “Lab Reports” section of Blackboard, uploaded by the date and time specified in the Course Schedule below. Reports that are not submitted before the deadline will not be graded and will receive a 0.
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 missing a quiz or assignment. Any documentation required for excused absences must be presented to me 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.

The GMU Honor Code will be strictly enforced: Students are required to complete their own work—plagiarism, cheating, and copying another student’s work will not be tolerated. Information that is used from an outside source must be cited in correct APA format. Cheating and plagiarism will be reported to the University Honor Board.

Official Communications via GMU Email: Mason uses email 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 email account and are required to activate that account and check it regularly. In the event that the course schedule changes, then I will notify students via email, and I will reorganize the class in order to address all material. Due dates for quizzes, practicals, and/or assignments will be changed if necessary.

Students with Disabilities: If you are a student with a disability and need academic accommodations please email me right away. You can contact the Disability Resource Center (DRC) by phone at 703-993-2474. All academic accommodations must be arranged through the DRC.

Selective Withdrawal Period: Undergraduate degree-seeking students may request a maximum of three-selective withdrawals during their entire undergraduate career. Before/If you decide that you would like to selectively withdraw from the course, please talk to your advisor and/or me to verify that it is the best decision for you.

Grading: Your course grade will consist of the following weighted assignments:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Practical I</td>
<td>15%</td>
</tr>
<tr>
<td>Practical II (cumulative)</td>
<td>25%</td>
</tr>
<tr>
<td>Quizzes (2)</td>
<td>20% (10% each)</td>
</tr>
<tr>
<td>Lab Reports (4)</td>
<td>40% (10% each)</td>
</tr>
</tbody>
</table>

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)

First day of classes: Mon. January 24th
Last day to add/drop classes: Mon. January 31st
Selective withdrawal period: Mon. March 2nd – Wed. April 11th
# Tentative Course Schedule

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>ASSIGNMENTS DUE</th>
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| 1/24 | Course Introduction  
**Lecture 1:** Neurophysiology | *Read syllabus; watch Lecture 1 videos* |
| 1/31 | **Lecture 2:** The Action Potential  
**Intro to Lab Report 1:** MetaNeuron simulation | **Lab Report 1** due by Fri. 2/4 at 9 PM |
| 2/7  | **Lecture 3:** Brain Tour I  
**Surface identification** | **Quiz 1 (Lectures 1 & 2)** opens on Blackboard 2/7 at 9 AM; due by Fri. 2/11 at 9 PM |
| 2/14 | **Lecture 4:** Brain Tour II  
**Cranial nerves identification** | *Study brain surface structures and cranial nerves* |
| 2/21 | Practical Review (Lectures 3-4) / Mock exam | **Mock Exam 1** opens on Blackboard 2/21 at 9 AM (optional – not graded) |
| 2/28 | **Practical Exam 1:** Brain Tours I & II  
(Lectures 3-4) | **Exam 1** opens on Blackboard 2/28 at 9 AM; due by Fri. 3/4 at 9 PM |
| 3/7  | **Lecture 5:** Visual System  
**Eyeball dissection** | **Lab Report 2** due by Fri. 3/11 at 9 PM |
| 3/14 | *No lecture — Spring Break* | *None! 😊* |
| 3/21 | **Lecture 6:** Midsagittal Brain  
**Midsagittal dissection** | **Quiz 2 (Lecture 5)** opens on Blackboard 3/21 at 9 AM; due by Fri. 3/25 at 9 PM |
| 3/28 | **Lecture 7:** Coronal Brain  
**Coronal dissection** | *Study eyeball, midsagittal, & coronal structures* |
| 4/4  | Practical Review (Lectures 6-7) / Mock exam | **Mock Exam 2** opens on Blackboard 4/4 at 9 AM (optional – not graded) |
| 4/11 | **Practical Exam 2:** Cumulative (Lectures 3-6) | **Exam 2** opens on Blackboard 4/11 at 9 AM; due by Fri. 4/15 at 9 PM |
| 4/18 | **Lecture 8:** Behavioral Neuroscience & Histology | **Watch Lecture 8; begin work on Lab Report 3** |
| 4/25 | **Lecture 9:** Cognitive Neuroscience & EEG | **Lab Report 3** due by Fri. 4/29 at 9 PM |
| 5/2  | *No lecture — Submit all assignments to Blackboard* | **Lab Report 4** due by Fri. 5/6 at 9 PM |

*Note: You are responsible for knowing about all announcements and any syllabus modifications made via Blackboard and/or email. Please contact me right away if you have any questions/concerns about submitting assignments for the dates shown.*

*This lab does not have a final exam.*