**Biopsychology Lab**

**PSYC 373-204**

**Fall 2021**

**INSTRUCTOR:** Lindsay Allen

**E-MAIL:** [lallen24@gmu.edu](mailto:lallen24@gmu.edu)

**MEETINGS:** Thursdays, 8:30 – 10:20 AM

**LOCATION:** David King Jr. Hall, Rm 2074

**OFFICE HOURS**: Thursdays over Zoom, 10:45 AM – 12:00 PM & in-person by appointment

**COURSE OVERVIEW & OBJECTIVES**

The primary goal of this lab is for students to become familiar with brain structure and function through lectures and dissections/activities. The course will begin with a broad survey of cellular neuroscience, behavioral neuroscience, and histology. The course will then focus on the specific structures found in sheep brain/eye dissections, including location and function. Following this course, students will have the ability to recognize brain structures and knowledge of associated functions.

**REQUIRED TEXT**

There is no required text for this course. The following are optional texts to supplement your knowledge of the course content and to provide clarification on topics you would like further information on.

* Cooley, R.K., & Vanderwolf, C.H. (2001). The Sheep Brain: A Basic Guide. A.J. Kirby Co.: London. **(not required)**
* Kalat, J.W. (2016). Biological Psychology 12th Edition. Cengage Learning: USA. **(not required)**

**COURSE REQUIREMENTS**

* **Attendance:** The material covered in class will be the basis for quizzes, exams, and lab reports. As such, it is extremely important that students attend class each week. Attendance will be worth 10% of the total grade.
* **Quizzes:** The quizzes will be based on lecture material covered in class. This will include the information not directly tied to the dissection itself. As such, these quizzes will not require identification of brain structures as observed through dissection unless specifically stated. There will be 2 quizzes total, with each individual quiz worth 5% of the total grade (10% total).
* **Lab Reports:** Students will be asked to complete four lab reports throughout the course. These lab reports will be a mix of short answer questions and brain structure identification. Each individual report is worth 10% of the total grade (40% total).
* **Lab Practical Exams:** Exams consist of identification and/or questions regarding brain structures. There will be 2 practical exams total, Practical 1 will cover Brain Tours I & II and is worth 15% of the total grade. Practical II is a cumulative final, and will cover Brain Tours I, II, III, IV, as well as the eye dissection, and is worth 25% of the total grade. Mock practicals will be assigned the week before each practical. These mock practicals will not be worth points, but are instead intended to help students prepare for the actual practical.

**GRADING SCALE**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A** | **A-** | **B+** | **B** | **B-** | **C+** | **C** | **C-** | **D** | **F** |
| **93 – 100%** | **90 – 92%** | **87 – 89%** | **83 – 86%** | **80 – 82%** | **77 – 79%** | **73 – 76%** | **70 – 72%** | **60 – 69%** | **59% - lower** |

**Grades will be rounded up from .5%. For example, an 89.50% would become an A-, however, an 89.49 would become a B+.**

**GRADING**

**10% Attendance**

**10% Quizzes (2 x 5% each)**

**40% Lab reports (4 x 10% each)**

**15% Lab practical I**

**25% Lab practical II (cumulative)**

**TENTATIVE SCHEDULE (subject to change):** This is a tentative schedule outlining this course and is subject to change at the instructor’s discretion. If changes are made, this will be announced in class and the new schedule will be posted to Blackboard.

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Topics | In-Class Activities/Exams | Due on Blackboard by 11:59pm |
| 8/26 | **Neurophysiology** – glial cells, neurons, action potentials, & postsynaptic potentials | Introduction to MetaNeuron  **Activity:** Good to Know |  |
| 9/2 | **Brain Tour I** (Whole Brain) | **Quiz 1:** Neurophysiology  Surface identification of structures | **Lab report I**: MetaNeuron simulation |
| 9/9 | **Brain Tour II** | Surface identification of cranial nerves |  |
| 9/16 | **Study Session:** Lab practical I | Practice practical |  |
| 9/23 | **Practical I** | Practical | **Study guide** (extra credit) |
| 9/30 | **Visual System Tour** | Eyeball dissection |  |
| 10/7 | **Midsagittal Tour** | **Quiz 2:** Visual System  Midsagittal dissection | **Lab report II**: Color perception & blind spot |
| 10/14 | **Coronal Tour** | Coronal dissection |  |
| 10/21 | **Study Session/Review:** Lab practical II | Practice practical |  |
| 10/28 | **Practical II** | Practical | **Study guide** (extra credit) |
| 11/4 | **Special Topics:** Behavioral Neuroscience | **Topic:** survey of behavioral neuroscience and methods for examining disease models |  |
| 11/11 | **Special Topics:** Behavioral Neuroscience | **Group project:** hypothetical disease model (in-class staining and experiment proposal) | **Lab report III**: Histology & behavioral neuroscience |
| 11/18 | **Special Topics:** Cognitive Neuroscience | **Topic:** Special methods used in cognitive neuroscience (i.e., EEG, fMRI, PET)  **Group project:** EEG activity | **Lab report IIII:** EEG & cognitive neuroscience  **Due**: 11/24 @ 11:59pm |
| 11/25 | **NO CLASS:** Thanksgiving Break |  |  |
| 12/2 | **Special Topics: TBD**  **Last Class of Semester** |  |  |

**IMPORTANT DATES**

Last day to add a class: August 30th

Last day to drop a class with 100% refund: September 27th

Selective withdrawal period: September 28th – October 27th

**LATE ASSIGNMENT POLICY**

Permission to postpone a quiz/exam or to turn in an assignment late will only be given for very important reasons. **Late assignments will receive 10% off the maximum score for each day late until a maximum of 50% is reached. All quizzes/practical exams that are missed without prior approval (e.g. ODS, etc.) will receive an automatic 0. Lab reports turned in late will immediately receive 10% off the maximum possible score. For every 24 hours a lab report is late another 10% will be deducted from the score until it is only worth 50% of the possible points. Lab reports may be turned in later than 5 days late with a maximum possible grade of 50%.**

**ACADEMIC INTEGRITY & HONOR CODE**

Students in this course are expected to behave at all times in a manner consistent with the GMU Honor System and Code (<http://mason.gmu.edu/~montecin/plagiarism.htm>). Cheating and plagiarism will not be tolerated and will be reported to the University Honor Board and/or penalized. **All assignments should be completed individually, without the help of classmates or other peers. This includes, quizzes, lab reports, and lab practical exams.** I reserve the right to enter a failing grade to any student found guilty of an honor code violation.

**CLASS CANCELLATION POLICY**

Due to unforeseen circumstances classes may be cancelled. An announcement will be posted on Blackboard and an email will be sent prior to class to notify students of any class cancellations. In order to account for cancelled classes, the course schedule is subject to change.

**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 email account and will need to check it regularly. I will not respond to or send emails from a non-Mason email address.

**TECHNOLOGY STATEMENT**

Required knowledge of technology for this course includes ability to retrieve documents, watch videos, and turn in assignments sent either through GMU email or posted on Blackboard (mymasonportal.gmu.edu).

**ACCOMMODATION OF DISABILITIES**

Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. Note that this provision includes the range of disabilities, including physical, psychiatric, and learning disabilities. If you are seeking accommodations for this class, please first visit http://ds.gmu.edu/ for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with me. All academic accommodations must be arranged through Disability Services. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu | Phone: (703) 993 – 2474.

**SEXUAL HARASSMENT, SEXUAL MISCONDUCT, AND INTERPERSONAL VIOLENCE**

I am required to report all disclosures of sexual assault, interpersonal violence, and stalking to Mason’s Title IX Coordinator per university policy 1412. If you would like to speak with someone confidentially, please contact the Student Support and Advocacy Center (703-380-1434) or Counseling and Psychological Services (703-993-2380). You may also seek assistance from Mason’s Title IX Coordinator (703-993-8730; [titleix@gmu.edu](mailto:titleix@gmu.edu)).

**STUDENT SUPPORT SERVICES**

George Mason offers services to support students’ academic and emotional development. Counseling and Psychological Services, located in SUB I room 3129 (caps.gmu.edu), offers workshops in academic skills, stress management training, and virtual counseling for students who would like some help with social, emotional, or educational concerns. Consider taking advantage of these resources if you need them. For additional information about other student support services offered, visit: https://stearnscenter.gmu.edu/knowledge-center/knowing-mason-students/student-support-resourcesoncampus/