

# BIOL3204: Physiology LABORATORY

Spring 2025

Department of Integrative Biology  
Oklahoma State University

4 Credit Hours (Lecture + Laboratory)

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**Laboratory Location:** Life Sciences West 210

**Laboratory Duration:** 1 hour 50 minutes

**Lead Teaching Assistant:** [REDACTED]

**Email:** [REDACTED]

**Laboratory Teaching Assistants:**

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

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**Professor:** [REDACTED]

**Email:** [REDACTED]

**Professor:** Dr. Ciarán Shaughnessy

**Email:** ciaran.shaughnessy@okstate.edu

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## Introduction

**Welcome to the Physiology Lab!** This laboratory is designed to supplement the material covered in lectures by giving students a hands-on experience investigating and evaluating physiological processes.

**For all questions** regarding the laboratory (e.g., study material, attendance, assignments, and grading), students should contact their assigned TA for their section.

### Laboratory Grading Scheme

A total of 200 points will be available throughout the term.

|   | <u>Maximum Points</u> |
|---|-----------------------|
| <b>Attendance &amp; Participation</b> (7 points per lab across 12 graded labs) .....                | <b>84 Points</b>      |
| <b>Quizzes</b> (each worth 10 points; lowest score is dropped) .....                                | <b>50 Points</b>      |
| <b>Lab Report Rough Draft</b> (16 points for rough draft).....                                      | <b>16 Points</b>      |
| <b>Lab Report</b> (one final lab report is due at the end of the term; see information below) ..... | <b>50 Points</b>      |
|   | <b>200 Points</b>     |

**Minimum Requirements:** A student cannot pass BIOL 3204 without meeting the following minimum laboratory requirements:

- Students must attend a minimum of 8 out of 12 graded laboratory classes
- Students must earn at least 120 points in the laboratory

*Students who do not meet the above minimum requirements will receive an 'F' for BIOL 3204.*

### 84 Points for Attendance & Participation

#### **Attendance**

**Attendance in laboratory is required** to receive credit for pre-lab components, quizzes, assignments, or participation. Students must attend their assigned laboratory section. Students cannot attend any other laboratory section than the section in which they are enrolled. **If a student misses a laboratory, they will receive a score of '0' for all components** (i.e., pre-lab components, quizzes, assignments, and participation).

**Missed laboratories cannot be made up** except for: (i) documented health reasons (a note from a doctor from the day of the missed laboratory is required for any make-up opportunity), or (ii) a documented and university-sponsored absence (e.g., athletics), for which documentation must be provided at least a week in advance and any make-up arrangements have been approved by and coordinated with the TA. If a laboratory must be missed for another reason, students should contact their TA. **Please note:** *Generally, missed laboratories cannot be made up for non-athletics extra-curricular reasons, such as greek, club sports, church or mission trips, family, and work.*

It is the student's responsibility to contact the TA about approved absences and to arrange make-up work. All make-up work must be completed within one week of the missed laboratory. If make-up arrangements have been approved by the TA, students can earn the following make-up credit:

- Students can receive credit for the pre-lab assignments for the missed week
- Students can make up a missed quiz

**Students must be present in at least 8 laboratory classes to pass BIOL 3204.** There are 12 graded laboratory classes (Labs # 2-13). If a student does not attend at least 8 weeks of laboratory, they will receive an 'F' for BIOL 3204. **Please note:** *Lab #1 does not count toward the 8 minimum required labs. Excused absences are still counted as absences, and do not count toward the 8 laboratory classes required to pass BIOL 3204.*

## Participation

**Active participation is required in all laboratories.** Students will be awarded 7 points per lab for participation across 12 graded laboratories (*i.e.*, 84 points total). Students may be deducted participation points at the discretion of the TA for not meeting participation expectations. The TA will give a warning prior to deducting points.

**3 Points for Pre-Lab Components.** These will generally be questions related to the upcoming lab and are due at the beginning of each lab. Pre-lab assignments for data collection lab classes will include reading scientific articles and writing a short summary.

**4 Points for In-Class Participation and Engagement.** This includes active participation and engagement in all laboratory and group activities, completing all laboratory activities, material, and questions, demonstrating proper and safe laboratory techniques and behavior, and cleaning up all laboratory spaces used.

**The use of phones is strictly prohibited** (unless explicitly allowed by the TA). Students using phones will be deducted participation points at the discretion of the TA and in proportion to time spent not actively participating in laboratory activities.

### 50 Points for Quizzes

**There will be 6 quizzes throughout the semester worth 10 points each.** The lowest quiz grade will be dropped, and the maximum number of points students can get for Quizzes is 50 points. Quiz content will cover topics addressed in laboratory activities. Quizzes will consist of multiple question types including labelling, multiple choice, fill-in-the-blank, matching, short answer, and true/false questions. Quizzes will be 10 min and taken in-person at the beginning of the labs on the dates indicated below. The exception to this is Quiz 6, which will be a comprehensive quiz taken on Canvas. **Please note:** *Quizzes cannot be made up except for excused absences that have been approved by and coordinated with your TA.*

|        |           |                    |           |                        |
|--------|-----------|--------------------|-----------|------------------------|
| Quiz 1 | 10 Points | Covers Labs # 1-2  | In-Person | Week Beginning: Feb 3  |
| Quiz 2 | 10 Points | Covers Labs # 3-4  | In-Person | Week Beginning: Feb 17 |
| Quiz 3 | 10 Points | Covers Labs # 5-6  | In-Person | Week Beginning: Mar 3  |
| Quiz 4 | 10 Points | Covers Labs # 7-8  | In-Person | Week Beginning: Mar 24 |
| Quiz 5 | 10 Points | Covers Labs # 9-10 | In-Person | Week Beginning: Apr 7  |
| Quiz 6 | 10 Points | Covers Labs # 1-13 | On Canvas | Apr 28 <b>May 2</b>    |

**Students with documented accommodations** for quizzes must contact their TA to arrange any accommodations. Please email or speak with your TA by the second lab.

### 16 Points for Lab Report Workshop & 50 Points for Lab Report

**The Lab Report is due the final week of the semester.** Throughout the semester, students will engage with writing a lab report modeled after a peer-reviewed scientific article. The lab report can be based on one of five data collection experiments performed during the semester (see list of experiments below). This will be a guided process of writing and revising a scientific report, including: (i) writing and submitting a first draft (see due date below), (ii) participating in the peer-review process of reading and evaluating a rough draft of peers, and proving constructive criticism (see peer-review workshop date below), and (iii) revising the first draft of the lab report, based on the peer review process and additional input from the TA, and submitting a final copy at the end of the semester (see

due date below). **Please note:** Writing a lab report is an individual effort. Group work and the use of generative AI is not allowed and will be considered a violation of the academic integrity policy.

**List of Data Collection Experiments for Lab Reports.** Lab Reports must be written based on one of the following laboratory experiments. **Please note:** Students wishing to write a lab report on the “Reproductive Physiology” lab must have participated in the 40 days of data collection to have data for the rough draft by the due date.

- “Cellular Osmosis”
- “Glucose Homeostasis”
- “Cardiovascular Systems”
- “Dive Reflex”
- “Reproductive Physiology”

**Due Dates for Lab Report Activities.** The rough draft and final lab reports are due at the dates and times listed below, regardless of when a student’s lab section meets. Students must attend lab on the week indicated below to participate in the peer-review workshop.

|                      |           |  |
|----------------------|-----------|--|
| Rough Draft Due      | 16 Points | Due at 11:59PM on Fri, Apr 4                               |
| Peer-Review Workshop | 7 Points  | Week of Apr 14 (Lab # 12)                                  |
| Final Lab Report Due | 50 Points | Due at 11:59PM on <del>Wed, Apr 30</del> <b>Fri, May 2</b> |

### General Information

**Policy for Late Assignments:** Pre-Lab Components (Pre-Lab questions and article summaries) will not be accepted late and a ‘0’ will be assigned for missing Pre-Lab assignments. Rough Draft and Final Report assignments submitted late will be penalized 25% per day. To calculate the number of days late, Canvas rounds up to the next whole number. **For Example:** If a student submits a 16-point assignment 1.3 days late, the late penalty will be rounded from 1.3 days up to 2 days, and the student’s score will include a 50% deduction for lateness. If the student got all of the points of the assignment correct, they would receive a final score of 8/16 points.

**Bloodborne Pathogen Training:** Bloodborne Pathogen Training is mandatory to participate in the Glucose Homeostasis laboratory. Prior to lab, students must complete an online training and upload their certificate of completed training to Canvas. There will be an ‘Assignment’ on Canvas.

**Policy on Attire and Food/Drinks:** Close-toed shoes are required for participation in the laboratory. Food and drinks are strictly prohibited from the laboratory (except when a part of the laboratory assignment itself). Food and drinks stored in a bag on the hooks in the hallway of the laboratory room.

**Grading Inquiries:** Any concerns about grades on a particular laboratory assignment (e.g., questions you think may have been graded incorrectly, etc.) must be addressed before Pre-Finals week (Week 15 of classes), or they will not be considered. It is the students’ responsibility to check scores carefully and promptly notify their TA with any questions or concerns.

**Academic Integrity in Laboratory:** Quizzes and lab reports are indicators of individual performance. Group efforts, collaborations, and giving/receiving help from peers on quizzes and lab reports are strictly prohibited and will be considered a violation of the Academic Integrity Policy. This includes plagiarism of any kind (e.g., copying from a friend, from a previous assignment, or from any other outside source, including paraphrasing without giving proper credit). The penalty for violations of academic integrity may range from a minimum of a ‘0’ on the assignment to a maximum of expulsion from Oklahoma State University, depending upon the severity of the infraction. For policy details and examples of violations of academic integrity, see the website: <http://academicintegrity.okstate.edu/>.

**OSU Academic Integrity Policy:** OSU is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates the [OSU Academic Integrity Policy](#) (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in your being sanctioned. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination, or course, receiving a notation of a violation of academic integrity on your transcript, and being suspended or dismissed from the University.

**Student Accessibility Services:** According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the university of the disability and requesting accommodations. If you think you have a qualifying disability and need accommodations, contact the [Office of Student Accessibility Services](#) to start the registration process and to ensure the timely implementation of appropriate accommodations. To receive services, you must submit appropriate documentation and complete an intake process to verify the existence of a qualified disability and identify reasonable accommodations. Faculty are obligated to respond when they receive official notice of accommodation but are not obligated to provide retroactive accommodations.

**Important Dates and Course Policies Established by OSU:** Please see the "Syllabus Attachment" on Canvas or this link: <https://academicaffairs.okstate.edu/site-files/documents/fall-2024-syllabus-attachment-7-26-2024.pdf>

### Laboratory Schedule

| Lab # | Week   | Lab Content                                  | Quiz           | Lab Report Timeline   |
|-------|--------|--|----------------|---|
| 1     | Jan 13 | Syllabus and Anatomy ( <i>not graded</i> )   |                |   |
|       | Jan 20 | <i>No Labs   Martin Luther King Jr. Week</i> |                |   |
| 2     | Jan 27 | Cell Osmosis                                 |                | <i>Data Collection</i>                                      |
| 3     | Feb 3  | Endocrinology                                | #1 (Labs 1-2)  | <b>Statistics Workshop</b>                                  |
| 4     | Feb 10 | Glucose Homeostasis <b>*BBP Training</b>     |                | <i>Data Collection</i>                                      |
| 5     | Feb 17 | General and Special Senses - Part 1          | #2 (Labs 3-4)  |   |
| 6     | Feb 24 | General and Special Senses - Part 2          |                |   |
| 7     | Mar 3  | Muscle Twitch and Skeletal Reflexes          | #3 (Lab 5-6)   |   |
| 8     | Mar 10 | Cardiovascular System - Part 1               |                | <i>Data Collection</i><br><b>Introduction to Lab Report</b> |
|       | Mar 17 | <i>No Labs   Spring Break</i>                |                |   |
| 9     | Mar 24 | Cardiovascular System - Part 2               | #4 (Labs 7-8)  |   |
| 10    | Mar 31 | Dive Reflex                                  |                | <i>Data Collection</i>                                      |
| 11    | Apr 7  | Urinalysis                                   | #5 (Labs 9-10) | <b>Rough Draft, Due Apr 6</b>                               |
| 12    | Apr 14 | Peer Review Workshop                         |                | <b>Peer-Review Workshop</b>                                 |
| 13    | Apr 21 | Reproductive Physiology                      |                | <i>Data Collection</i>                                      |
|       | Apr 28 | <i>Make-Up Labs   Pre-Finals Week</i>        | #6 (Labs 1-13) | <b>Final Report, Due May 2</b>                              |
|       | May 5  | <i>No Labs   Finals Week</i>                 |                |   |

**Please note:** To attend the Glucose Homeostasis lab, students must have completed Bloodborne Pathogen Training and uploaded a certificate of completion to Canvas.