

# University of North Texas-Department of Biological Sciences-Spring 2026

## Biology 3800.001: Animal Physiology

Class time: Tuesday/Thursday, 11:00-12:20pm

Class location: BLB 055

### Instructor Contact

**Name:** Lisa Welch, Ph.D.

**Pronouns:** She/her

**Office Location:** Life Sciences Complex Building A, Room 128B

**Phone Number:** 940-369-7989

**Student Hours:** Tuesday/Thursday 9:45-10:45am and 1:00-2:00pm or by appointment.

**Email:** [lisa.welch@unt.edu](mailto:lisa.welch@unt.edu)

### Course Prerequisites or Other Restrictions

Prerequisites. BIOL 1710 or BIOL 1711; BIOL 1720 or BIOL 1722, AND BIOL 1755, or BIOL 1760, or BIOL 1761; BIOL 2041/BIOL 2042 or BIOL 2140 or BIOL 2241 or BIOL 2251, or BIOL 2302/BIOL2312; CHEM 1410/CHEM 1430; CHEM 1420/CHEM 1440; or consent of department.

### Materials

Textbook - *Human Physiology: An Integrated Approach*, by Dee Unglaub Silverthorn. 8th Edition\_with *Mastering A & P Access*. Pearson Publishers. 2019

### Course Objectives

By the end of this course, students will be able to:

1. learn fundamental physiological knowledge necessary to build a strong foundation for advanced study in biological sciences.
2. demonstrate an understanding of physiological systems at multiple levels of biological integration
3. demonstrate the use of physiological and biological terminology to communicate course concepts.
4. critically evaluate current clinical problems and examples as they relate to different systems in the body.

### Course Description

This course fulfills the physiology lecture requirement for biology majors. We will focus on the physiology of vertebrates at levels of biological organization ranging from the interaction of organ systems down to the action of individual molecules. We will use an integrative approach to examine the principles of vertebrate physiology; however, this course uses a book that highlights humans as the primary animal model. Several other animal models may be utilized to illustrate conserved physiological principles and core concepts whose study is foundational to modern medicine. This course is ideal for those interested in pursuing advanced degrees in biology, and for anyone interested in health science professions, such as medicine, dentistry, physical or occupational therapy, medical laboratory sciences and physician assistance. It is an excellent preparation for the MCAT and other entrance exams.

## Course Structure

This course will be taught in a face-to-face format. The semester is 16 weeks long with the last week reserved for finals and pre-final and reading days. We will be covering approximately 24 chapters. Some chapters will be given more time, others less. PowerPoint presentations and other materials for the course will be provided through [Canvas \(https://unt.instructure.com/\)](https://unt.instructure.com/). You will also have homework assigned through MyLab and Mastering. The homework is designed to reinforce concepts, provide review of material, and allow you to gauge your level of understanding. You will be working with a group in class to work through problems and to respond to in class questions using [iClicker \(https://macmillan.force.com/iclicker/s/article/Checklist-Getting-Started-with-the-iClicker-Student-App\)](https://macmillan.force.com/iclicker/s/article/Checklist-Getting-Started-with-the-iClicker-Student-App). You will receive participation points for these in class activities and questions. If you will be missing class for a legitimate reason you will need to notify the instructor as soon as possible.

I will be using a combination of lecturing, problem solving, and low-stakes review questions with instant feedback. There will be a large amount of material to be memorized but the main goal of this course is for you to understand the interrelationships of the material and to be able to assemble these facts to answer application type questions and problems. You will be responsible for keeping up with the reading and reviewing the material from each lecture. Each lecture will build on previous lectures.

**Communication Expectations:** The best method to contact me is through my UNT email. Emails need to include your complete name, the name of the course, and the section (Biol 3800.001). I will generally respond to messages within 24 hours (weekends and holidays excluded). Students encountering technical problems with course material, assignments, or quizzes/exams should contact me for assistance as early as possible before any due dates. If you do not contact me before the work is due, you may still be assessed grade penalties for late work. Communication from me will come through Canvas through announcements or emails to your UNT email address. Please make sure you check your email account regularly as some communications may be time sensitive. Proper communication with your instructor and peers is important.

## Rules of Engagement

Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language will not be tolerated.
- Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual’s experiences.
- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk” unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type.

## Course Schedule

| <b>Week/<br/>Dates</b> | <b>Chapter/Reading/Material for<br/>Lecture</b>   | <b>Assignments</b>  | <b>Due Date</b>                  |
|------------------------|---|---|----------------------------------|
| 1<br>1/13 & 15         | Course introduction, Chapter 1:<br>Introduction to Physiology<br>Chapter 5: Membrane Dynamics                             | Quiz 1: Course Intro  | 1/20                             |
| 2<br>1/20 & 22         | Chapter 5: Membrane Dynamics (cont)<br>Chapter 6: Communication,<br>Integration, and Homeostasis                          | MyLab and Mastering Chapters 1-6  | 2/2                              |
| 3<br>1/27 & 29         | Ch. 7 Introduction to the Endocrine<br>System<br>Ch. 23 Endocrine Control of Growth<br>and Metabolism                     | MyLab and Mastering Chapter 7<br><br>MyLab and Mastering Chapter 23           | 2/2<br><br>2/2                   |
| 4<br>2/3 & 5           | <b>Exam 1: Chapters 1, 5, 6, 7, and 23</b><br>Ch. 22 Metabolism and Energy Balance<br>Ch. 26 Reproduction and Development | <b>Exam 1: Chapters 1, 5, 6, 7 &amp; 23</b><br>MyLab and Mastering Chapter 22 | <b>2/3</b><br>2/23               |
| 5<br>2/10 & 12         | Ch. 26 Reproduction and Development<br>Ch. 8 Neurons: Cellular and Network<br>Properties                                  | MyLab and Mastering Chapter 26  | 2/23                             |
| 6<br>2/17 & 19         | Ch. 8 Neurons: Cellular and Network<br>Properties<br>Ch. 11 Efferent Division: Autonomic<br>and Somatic Motor Control     | MyLab and Mastering Chapter 8<br><br>MyLab and Mastering Chapter 11           | 2/23<br><br>2/23                 |
| 7<br>2/24 & 26         | <b>Exam 2: Chapters 22, 26, and 8</b><br>Ch. 12 Muscles   | <b>Exam 2: Chapters 22, 26, 8-10</b>  | <b>2/24</b>                      |
| 8<br>3/3 & 5           | Ch. 12 Muscles<br>Ch. 14 Cardiovascular Physiology  | MyLab and Mastering Chapter 12  | 3/30                             |
| 3/10 & 12              | <b>Spring Break</b>   |   |                                  |
| 9<br>3/17 & 19         | Ch. 14 Cardiovascular Physiology<br>Ch. 15 Blood Flow and the Control of<br>Blood Pressure                                | MyLab and Mastering Chapter 14  | 3/30                             |
| 10<br>3/24 & 26        | Ch. 15 Blood Flow and the Control of<br>Blood Pressure (Cont.)<br>Ch. 16 Blood  | MyLab and Mastering Chapter 15<br>MyLab and Mastering Chapter 16              | 3/30<br>3/30                     |
| 11<br>3/31 & 4/2       | <b>Exam 3: Chapters 11, 12 and 14-16</b><br>Ch. 17 Mechanics of Breathing   | <b>Exam 3: Chapters 11, 12 and 14-16</b><br>MyLab and Mastering Chapter 17    | <b>3/31</b><br>5/4               |
| 12<br>4/7 & 9          | Ch. 18 Gas Exchange and Transport<br>Ch. 19 Kidney  | MyLab and Mastering Chapter 18<br>MyLab and Mastering Chapter 19              | 5/4<br>5/4                       |
| 13<br>4/14 & 16        | Ch. 21 Digestion<br>Ch. 9 The Central Nervous System  | MyLab and Mastering Chapter 21<br>MyLab and Mastering Chapter 9               | 5/4<br>5/4                       |
| 14<br>4/21 & 23        | Ch. 10 Sensory Physiology   | MyLab and Mastering Chapter 10  |                                  |
| 15<br>4/28 & 30        | Ch. 10 Sensory Physiology Cont.<br><b>Pre-Finals Day</b>  | MyLab and Mastering Chapter 10  | 5/4                              |
| Tuesday<br>May 5       | <b>Exam 4: Chapters 17-19 and 9 &amp; 10</b><br><b>10:30am-12:30pm</b>  | <b>Exam 4: Chapters 17-21</b>   | <b>5/5</b><br><b>10:00-12:00</b> |

**\*All MyLab and Mastering Assignments are due at 11:59pm.**

**\*\*Exam dates or coverage subject to change, with reasonable advance notice.**

## Grading

**Grading will follow a standard scale:**

- A 100 - 90%**
- B 89.9 - 80%**
- C 79.9 - 70%**
- D 69.9 – 60%**
- F 59.9% and below**

**Your grade will be based on percentages divided between exams, assignments/quizzes, and group discussions/assignments.** There will be 4 exams for this course. All exams will count equally. All exams are to be taken in person. All exams will be derived from the material covered in lectures.

- Exams- 4 Chapter Exams\* 75%
- MyLab and Mastering + Introduction Quiz 15%  
(20, lowest 3 will be dropped)
- In class participation/iClicker 10%

***\*The lowest exam score can be dropped if you have missed no more than 3 classes.\****

**There will be no make-up exams, except in case of excused absences recognized by the University of North Texas (observation of religious holiday, military service or wherein a student is representing the university in an official capacity such as athletics or band). Medical emergency may be considered but must be documented by a medical professional with the Dean of Students.** Make up exam must be taken prior to class one week from the date the exam was given. Example: if the exam is scheduled for Feb. 8 at 12:30pm then the make-up must be taken by Feb. 15 at 12:30pm.

**Extra credit/Bonus:** 4 points per exam can be earned. These points will come from participating in group study sessions, or for reviewing your exams. For the SPOT evaluation if 60% of the class participates 2 points will be added to the fourth exam grade; this will be in addition to the other points that can be added.

## Course Evaluation

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" ([no-reply@iasystem.org](mailto:no-reply@iasystem.org)) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the [SPOT website](http://spot.unt.edu/) (<http://spot.unt.edu/>) or email [spot@unt.edu](mailto:spot@unt.edu).

## Course Policies

### Attendance/Participation

Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor prior to being absent, so you and the professor can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

Class participation/attendance will be based on the iClicker questions in class. You can miss 3 days of class without losing points.

### Late Work

Late work will not be accepted, therefore, do not wait until the last minute to submit MyLab and Mastering assignments.

### Examination Policy

For exams you will be using a scantron, which will be provided to you. You will need to bring a #2 pencil to take the exam. Exams taken using an ink pen will not be accepted. You are responsible for marking the scantron correctly. You may not utilize notes, electronic devices, or assistance from others on the exams; any exceptions to this will be announced in class and will be put in the Announcements in Canvas.

### Assignment Policy

MyLab and Mastering assignments will be accessed through Canvas. You must have the online access from Pearson. The due dates for MyLab and Mastering assignments can be found in the schedule above and in the MyLab and Mastering Calendar, and assignment page. These assignments are due at 11:59pm the night before the exam for that chapter. The exception is for the final; these assignments are due before final week begins.

The University is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk: [helpdesk@unt.edu](mailto:helpdesk@unt.edu) or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

### Instructor Responsibilities and Feedback

- I am here to guide you through the material for this course, to provide clarification and help you to use the facts to answer complex questions and apply them to real world problems. I am here to help you. Please utilize student hours, ask question in class, and email me with questions or concerns.
- MyLab and Mastering assignments are instantly updated in the gradebook. Exams grades will be posted within a week of the exam. The best learning experience is to review your exam and look at questions you missed. You can review your exam during office hours. Bonus points and participation points may take up to two weeks to be posted.

## Syllabus Change Policy

This syllabus provides a plan for the execution of this course; however, because of potential unforeseen events or opportunities, the instructor reserves the right to make some reasonable adjustments in the schedule of topics, the material covered, or other aspects of this course. Any changes to the schedule or syllabus will be announced in class and posted in announcements.

## Course Technology & Skills

### Minimum Technology Requirements

The minimum technology requirements for needed for this course are:

- Computer
- Reliable internet access
- Speakers
- Microphone
- Plug-ins
- Microsoft Office Suite
- [Canvas Technical Requirements](https://clear.unt.edu/supported-technologies/canvas/requirements) (https://clear.unt.edu/supported-technologies/canvas/requirements)

### Computer Skills & Digital Literacy

Technical skills learners must have to succeed in the course:

- Using Canvas
- Using email with attachments
- Downloading and installing software
- Using presentation and graphics programs

### Technical Assistance

Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

**UIT Help Desk:** [UIT Student Help Desk site](http://www.unt.edu/helpdesk/index.htm) (http://www.unt.edu/helpdesk/index.htm)

**Email:** [helpdesk@unt.edu](mailto:helpdesk@unt.edu)

**Phone:** 940-565-2324

**In Person:** Sage Hall, Room 130

**Walk-In Availability:** 8am-9pm

**Telephone Availability:**

- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm

**Laptop Checkout:** 8am-7pm

For additional support, visit [Canvas Technical Help](https://community.canvaslms.com/docs/DOC-10554-4212710328) (https://community.canvaslms.com/docs/DOC-10554-4212710328)

## UNT Policies

### Academic Integrity Policy

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

### ADA Policy

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the [Office of Disability Access website](http://www.unt.edu/oda) (<http://www.unt.edu/oda>). You may also contact ODA by phone at (940) 565-4323.

### Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

### Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

### Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all

instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT's [Code of Student Conduct](https://deanofstudents.unt.edu/conduct) (https://deanofstudents.unt.edu/conduct) to learn more.

#### [Access to Information - Eagle Connect](#)

Students' access point for business and academic services at UNT is located at: [my.unt.edu](https://my.unt.edu). All official communication from the University will be delivered to a student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail [Eagle Connect](https://it.unt.edu/eagleconnect) (https://it.unt.edu/eagleconnect).

#### [Class Recordings & Student Likenesses](#)

Synchronous (live) sessions in this course may be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.

#### [Artificial Intelligence and Academic Integrity](#)

In this course, you are encouraged to use Generative AI (GenAI) tools such as ChatGPT, to support your learning and develop skills for a GenAI-oriented workforce. This use will help us stay technically proficient and ethically grounded. However, GenAI should complement, not replace, your critical thinking or our course materials. If something seems unclear, please seek clarification. I use GenAI to enhance materials, and create scenarios, I will always disclose how I use GenAI, and I expect the same from you. In line with the UNT Honor Code, all work you submit must be your own. Using GenAI tools without attribution or relying on them to complete assignments violates academic integrity and will be addressed according to university policy.