Animal Physiology
Biology 3800.002- Fall 2025

Instructor: Feng Gu, MD, PhD; office location: LSC B316; E-mail: Feng.Gu@unt.edu.

Class Hours and Location: MWF 10:00 AM to 10:50 AM; LSC A204.

Office Hours: Mondays and Wednesdays 11:00 AM to 12:00 PM or by appointment.

Course Description and Objectives: This course provides a comprehensive study of the physiology of vertebrates at levels of biological organization ranging from the interaction of organ systems down to the action of individual molecules. It uses a textbook that highlights humans as the primary animal model. Upon successful completion of the course, the students are expected to understand the general principles of physiology (i.e. body organization, cell function and communication, neural and hormonal control), the function and regulation of major organ systems, as well as the integration of these systems in maintaining homeostasis of the body. This course is designed for those interested in pursuing advanced degrees in biology, and for anyone interested in health science professions.

Course Format: The semester is 17 weeks long with the last week reserved for finals. 24 chapters will be covered. PowerPoint presentations and other materials for the course will be provided through **Canvas** (https://unt.instructure.com/). You will also have homework assigned through MyLab and Mastering. You will be working with a group in class to work through problems and to respond to in class questions using **iClicker** (https://mhe.my.site.com/iclicker/s/article/Checklist-Getting-Started-with-the-iClicker-Student-App). You will receive participation points for these in class activities and questions. Please notify the instructor as soon as possible If you will be missing class for a legitimate reason.

Course 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; PHYS 1410/PHYS 1430 or PHYS 1510/PHYS 1530 or PHYS 1710/1730; or consent of department.

Website: https://unt.instructure.com/login/ldap (Canvas) is the official web portal for this course. Please check this website regularly. It will contain updates to the syllabus, lecture slides, course announcements and potentially other files. It is recommended that you go to the website the day before each class to review the lecture slides as note-taking aids.

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

Course Technology and Skills:
Minimum technology requirements include a computer and reliable internet to access course materials through CANVAS (https://clear.unt.edu/supported-technologies/canvas/requirements)
Minimum computer and digital literacy skills include using CANVAS, using email with

attachments, downloading and installing software, and basic use of various browser plug-ins and the Microsoft Office Suite.

Technical Assistance:
If you do not have a computer, laptops are available for students to checkout at Willis Library (first floor entrance) or at University Information Technology (UIT) Student Computer Lab in Sage Hall, but they must plan accordingly (UNT ID required). We also have a Student Help Desk at UNT that students can contact for help with Canvas or other technology issues:

UIT Help Desk: https://it.unt.edu/helpdesk (support hours provided on website); **Email:** helpdesk@unt.edu; **Phone:** 940-565-2324; **Live Chat:** https://it.unt.edu/helpdesk/chatsupport
In Person: Sage Hall, Room 130 (Walk-in availability: 8am-9pm)

Grading: Your grade will be based on percentages divided between exams, assignments, and class participation. **Extra credit** will be assigned throughout the semester.

- Exams- 4 Exams 75%
  (The lowest exam score can be dropped if you have missed no more than 4 classes)
- MyLab and Mastering assignments 15%
  (Lowest 3 will be dropped)
- In class participation/iClicker 10%

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

Exams: Students will take three exams during the semester and a final exam during finals week (four exams total; 100 pts each). The final exam is not comprehensive and will only cover the material presented after the third exam. Exams will only assess knowledge of topics specifically covered in lectures and from material included on the PowerPoint slides provided in Canvas. Note that the PowerPoint slides in Canvas will likely contain more slides/information than is covered in class. I will be using lectures to focus on the more challenging materials and will therefore omit some slides during lectures; however, all material on the Canvas slides will be required learning material. The content included on each exam may be different from what is listed in the tentative course schedule. Topics covered on an exam will be announced in class and on Canvas. All exams are to be taken in person. **The lowest exam score can be dropped if you have missed no more than 4 classes.**

- **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. Unless otherwise stated, no material (books, notes, phones, computers, other electronic devices)

of any kind can be used during an examination. Any student found cheating on any exam will receive a grade of zero (0) for that exam and a note will be placed in their permanent file. If caught cheating twice you will be permanently removed from the course. Please be on time for all exams!

- **Make-up Exams:** 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. 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 Oct. 8 then the make-up must be taken by Oct. 15 before 10am.
- **Extra credit/Bonus:** 4 points per exam can be earned. These points will come from participating in group study sessions or SI sessions. 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.

Class Participation: Class participation will be based on the iClicker questions in class. To get a total of 1 participation point to be awarded for a class session you must answer at least 50% of the questions in class for the day. Only participation is required to obtain the point; you will not be penalized for incorrect answers. If you lose your device used for iClicker, it malfunctions, or you lose internet connection, you may submit your responses on paper. You can miss 4 days of class without losing points.

Each student must be registered to **iClicker Student** and have a device (computer, smartphone or tablet) for polling responses for this course. Because iClicker Student is flexible across devices, you may participate by choosing one of the two options below:

iClicker Student app: You may use your own smartphone or tablet by downloading the app available for iOS and Android

iClicker Student website: iClicker Student - Login (link to an external site) for browser-based use.

With either option, you will create an account with iClicker, select University of North Texas as your institution, and enter your EUID in the Student ID (optional) space. You may also join using the following link: **https://join.iclicker.com/JNDC**

Assignment Policy: MyLab and Mastering assignments will be accessed through Canvas (Access Pearson). You must have the online access from Pearson. The due dates for MyLab and Mastering assignments can be found 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. Late work will not be accepted, therefore, do not wait until the last minute to submit MyLab and Mastering assignments.

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 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.

Attendance: Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. You should attend every class unless you have a university excused absence such as active military service, a religious holy day, or an official university function as stated in UNT's Student Attendance and Authorized Absences Policy (https://policy.unt.edu/sites/default/files/06.039%20Student%20Attendance%20and%20Authorized%20Absences.pdf) . If you cannot attend a class due to an emergency, please let your instructor know. Your safety and well-being are important. It is important that you communicate with the instructor prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals.

Rules of Engagement: General guidelines for interacting with each other and the instructor.

- Treat your instructor and classmates with respect in any communication.
- Use clear and concise language. Use correct spelling and grammar.
- Avoid using slang terms and limit the use of emoticons.
- Avoid using the caps lock feature as it may be interpreted as "YELLING!".
- Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be taken seriously or sound offensive.
- Be careful with personal information (both yours and other's).
- Do not send confidential information via e-mail.

See these Engagement Guidelines (https://clear.unt.edu/online-communication-tips) for more information.

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. Visit University of North Texas' Student Academic Integrity Policy https://policy.unt.edu/sites/default/files/06.003%20Student%20Academic%20Integrity.pdf to obtain additional information.

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. For additional information, please refer to the following websites below. You may also contact ODA by phone at (940) 565-4323. https://studentaffairs.unt.edu/office-disability-access. https://policy.unt.edu/policy/16-001.

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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/public safety emergencies). In the event of a university closure,

please refer to Canvas for contingency plans for covering course materials.

Class Recordings & Student Likenesses: In the event that a lecture(s) needs to be recorded, please note that such 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. Audio and video recordings of lectures by students are not allowed unless previous consent is obtained from the University and your instructor. Failing to follow these restrictions is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.

BIOL 3800.002 Animal Physiology

Fall 2025

Note: This schedule is subject to change

Week	Day	Date	Topics	Chapter Reading
1	M	8/18	Syllabus/Introduction	
1	W	8/20	Introduction to Physiology, Membrane Dynamics	Chapter 1
1	F	8/22	Membrane Dynamics	Chapter 5
2	M	8/25	Membrane Dynamics	Chapter 5
2	W	8/27	Communication, Integration & Homeostasis	Chapter 6
2	F	8/29	Introduction to the Endocrine system	Chapter 7
3	M	9/1	**Labor Day – NO CLASS**	
3	W	9/3	Introduction to the Endocrine system	Chapter 7
3	F	9/5	Endocrine Control of Growth and Metabolism	Chapter 23
4	M	9/8	Endocrine Control of Growth and Metabolism	Chapter 23
4	W	9/10	**Exam 1: Chapters 1, 5-7, and 23**	
4	F	9/12	Post-exam review, Metabolism & Energy Balance	Chapter 22
5	M	9/15	Metabolism & Energy Balance	Chapter 22
5	W	9/17	Reproduction and Development	Chapter 26
5	F	9/19	Reproduction and Development	Chapter 26
6	M	9/22	Neurons: Cellular and Network Properties	Chapter 8
6	W	9/24	Neurons: Cellular and Network Properties	Chapter 8
6	F	9/26	Neurons: Cellular and Network Properties	Chapter 8
7	M	9/29	The Central Nervous System	Chapter 9
7	W	10/1	The Central Nervous System	Chapter 9
7	F	10/3	Sensory Physiology	Chapter 10
8	M	10/5	Sensory Physiology	Chapter 10
8	W	10/8	**Exam 2: Chapters 22, 26, and 8-10**	
8	F	10/10	Post-exam review, Sensory Physiology	Chapter 10
9	M	10/13	Efferent Division: Autonomic and Somatic Motor Control	Chapter 11
9	W	10/15	Efferent Division: Autonomic and Somatic Motor Control	Chapter 11
9	F	10/17	Muscles	Chapter 12
10	M	10/20	Muscles	Chapter 12
10	W	10/22	Cardiovascular Physiology	Chapter 14
10	F	10/24	Cardiovascular Physiology	Chapter 14
11	M	10/27	Cardiovascular Physiology	Chapter 14
11	W	10/29	Blood Flow and the Control of Blood Pressure	Chapter 15
11	F	10/31	Blood Flow and the Control of Blood Pressure	Chapter 15
12	M	11/3	Blood	Chapter 16
12	W	11/5	**Exam 3: Chapter 10 (special senses only), 11, 12, 14, 15**	
12	F	11/7	Post-exam review, Blood	Chapter 16

Week	Day	Date	Topics	Chapter Reading
13	M	11/10	Mechanics of Breathing	Chapter 17
13	W	11/12	Mechanics of Breathing	Chapter 17
13	F	11/14	Gas Exchange and Transport	Chapter 18
14	M	11/17	The Kidney	Chapter 19
14	W	11/19	The Kidney	Chapter 19
14	F	11/21	Integrative Physiology II: Fluid and Electrolyte Balance	Chapter 20
15	M	11/24	**Thanksgiving Break - NO CLASS**	
15	W	11/26	**Thanksgiving Break - NO CLASS**	
15	F	11/28	**Thanksgiving Break - NO CLASS**	
16	M	12/1	The Digestive System	Chapter 21
16	W	12/3	**Pre-finals Day**	
16	F	12/5	**Reading Day - NO CLASS**	
16	S	12/6	**Final Exam: Chapters 16-21, 8am-10am**	

Schedule is tentative and subject to change.

Important dates (registering, dropping, etc): Fall Academic Calendar & Key Dates | University of North Texas (unt.edu)

Please note that November 7 is the last day to drop the course and receive a W.