



BIOL 2312 & 2112 / SPRING 2026

INTRODUCTION TO MODERN BIOLOGY II

SECTION 004

MEETING LOCATION: SCI 3.250

LECTURE: TUES AND THURS 8:30-9:45AM

WORKSHOP: WED 9-:50AM JSOM 11.206

INSTRUCTOR

Yannick Fotio, PharmD/Ph.D.

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Phone: 972-883-3618

Office: FO 3.407K (appointment only) and EA 3.410C (UTSW campus)

Office Hours: Wed 10 am-12pm. All virtual and appointment only. Use the link for booking

<https://outlook.office.com/bookwithme/user/14abbd00c6004a8390849f7e686d4650@utdallas.edu/meetingtype/9sF2NQJpPk6oY6C9quFEdQ2?bookingcode=70a39d93-76e8-43ad-b896-741274a20a38&anonymous&ismsaljsauthenabed&ep=mLinkFromTile>

TA: Prarthana Suresh (Prarthana.Suresh@UTDallas.edu)

COURSE DESCRIPTION

BIOL 2312 is a continuation of the modern biology series. Emphasis is placed on the physiology and anatomy of human and animal organ systems, and their relationship to the overall function of the organism.

COURSE LINKS AND MODALITY

This course will be taught in person without reduced capacity for the remaining of the semester. We will be using eLearning and Microsoft Teams. All materials can be found in eLearning.

STUDENT LEARNING OUTCOMES

Upon completion of this course the students should be able to do the following:

1. Be able to explain and classify the basic anatomy and physiology of animal organ systems.
2. Analyze, using these systems, the relationship between the structure and function of an animal system.
3. Evaluate structure/function relationships of organ systems and explain how they integrate into the total organism.

THESE DESCRIPTIONS AND TIMELINES ARE SUBJECT TO CHANGE AT THE DISCRETION OF THE PROFESSOR.

COURSE PRE-REQUISITES, CO-REQUISITE AND/OR OTHER RESTRICTIONS

Co-requisite: Introduction to Modern Biology Workshop: BIOL 2112

section	day	times	location
BIOL 2112.004	Wednesday	9-9:50am	JSOM 11.206

TEXTBOOKS AND MATERIALS

REQUIRED:

1. Cengage Mindtap: <https://www.cengage.com/unlimited/> (do NOT create an account immediately)
- The materials required for this class—and any other classes using Cengage products—are included in ONE Cengage Unlimited subscription. You get access to ALL your Cengage eTextbooks and online homework in ONE place.
- choose one of three levels of access:
 - \$152.00 per term (6 months) with Mindtap
 - Unlimited with Mindtap \$139.00 (4months) or \$214 (12 months - good if you plan to take BIOL 2311 in the next term)
- All options include:
 - access to an ebook to the edition shown below
 - access to Mindtap software for learn it exercises, homeworks
- Our text:

Biology: The Dynamic Science , 5th Edition

Peter J. Russell; Paul E. Hertz; Beverly McMillan; Joel H. Benington
ISBN-10: 0-357-13489-3
ISBN-13: 978-0-357-13489-4



*******IF YOU ARE UNSURE OF THE BEST OPTION, WAIT FOR FIRST DAY OF LECTURE AND USE THE FREE TRIAL PERIOD.**

2. Chrome Browser – please make sure this is the most current version
3. Mobile device with QR scanner capability and internet connection (for use in class)
4. Laptop or desktop or device with a Chrome Browser
5. Microsoft Teams

CENGAGE COURSE LINK

GETTING REGISTERED

To access your course materials and explore Cengage Unlimited, log in to elearning.utdallas.edu and navigate to your BIOL 2312 course. Click on the first homework assignment. When prompted, create or log in with your Cengage account and follow the prompts to complete the registration process.

For step-by-step help getting registered, head to <https://startstrong.cengage.com/mindtap-blackboard-ia-no/> and check out our training video and instructions.

SUPPLEMENTAL INSTRUCTION

(SI) is offered for this course. SI sessions are free group study opportunities, scheduled two times per week. Sessions are facilitated by an SI Leader, who has recently taken the course and received a high final grade. Attendance is voluntary. For information about the days, times, and locations for SI sessions, refer to www.utdallas.edu/studentsuccess/leaders/si.html

COMET CREED

THIS CREED WAS VOTED ON BY THE UT DALLAS STUDENT BODY IN 2014. IT IS A STANDARD THAT COMETS CHOOSE TO LIVE BY AND ENCOURAGE OTHERS TO DO THE SAME:

“AS A COMET, I PLEDGE HONESTY, INTEGRITY, AND SERVICE IN ALL THAT I DO.”

COURSE POLICIES

UT DALLAS SYLLABUS POLICIES AND PROCEDURES:

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please review the catalog sections regarding the [credit/no credit](#) or [pass/fail](#) grading option and withdrawal from class.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

LECTURES:

- Lectures will be in person.
- Some weeks there maybe pre-recorded lectures will be available in elearning. These can be watched on your own schedule.
- Attendance will be taken. See “Attendance” for details.
- All lecture slides for the week will be provided in eLearning prior to each Tuesday's lecture.
- Textbook is not required during lecture.

ATTENDANCE:

- Students are encouraged to regularly attend the class as per the schedule mentioned in the syllabus.
- Attendance will be taken each lecture at a random point using a QR code, MS forms and your own mobile device.
- Make sure your attendance is properly recorded for each class. You will receive an email confirmation on your submission which is your proof of attendance.
- For issues with recording your attendance that day, contact myself **before** you leave the class. You will need to show that you attempted the QR submission.
- **YOU CANNOT SHOW UP AT THE END OF CLASS AND JUST CHECK IN FOR THESE POINTS.**
- A maximum of 30 points can be earned towards your final score.
- Credit for attendance will be awarded at the end of the semester based on a sliding scale as summarized in the table below.

% Attendance	Points
90+	30
80-89.9	25
70-79.9	20
60-69.9	15
<60	0

LEARN IT EXERCISES:

- There are three “learn it” exercises each week. They are worth 3 points each. 9 points for each week's chapter.
- Learn It Exercises will be accessed via eLearning in the current unit folder and submitted using the Mindtap Cengage program.

- Instructions on how to complete Learn It Exercises are found at the [end of the syllabus](#).
- Learn It Exercises are due each Sunday at 11:59pm. Due date and time will be shown in elearning and Mindtap/Cengage.
- The Learn It Exercises are not timed. You may work on it in parts and save it as you go. Estimated time to complete each Learn It Exercises is 5-15 minutes.
- The lowest six (6) Learn It Exercise scores will be dropped from your final grade. This is equivalent to 2 chapters worth of assignments. The drops will be the lowest scores over the whole semester. It is possible to have drops from different weeks as each 3 point score is looked at individually.
- Please make sure to access the Learn It Exercises using elearning and DO NOT log directly into Cengage. This will cause your grade to not record properly.
- If you incur any technical difficulties, you can contact me to resolve the issue. All such requests must be submitted to me via email and prior to Saturday 11:59pm. I will not fix any technical issues on the day the homework is due. In other words, do not wait until the last day to complete the Learn It Exercises.

HOMEWORKS:

- One homework will be assigned each week and found in the current unit folder in elearning.
- Instructions on how to complete homeworks are found at the [end of the syllabus](#).
- Each homework is worth ten (10) points. You will have two attempts at the homework questions. The best score of the two attempts will record.
- Homework will be accessed via eLearning and submitted using the Mindtap Cengage program. Due dates will be shown and correlate.
- The homework is not timed. You may work on it in parts and save it as you go. Estimated time to complete each homework is 30-45 minutes.
- The lowest two (2) homework scores will be dropped from your final grade.
- Homeworks are due each Sunday at 11:59pm. Due date and time will be shown in elearning/Mindtap/Cengage.
- Please make sure to access the homework using elearning and DO NOT log directly into Cengage. This will cause your grade to not record properly.
- If you incur any technical difficulties, you can contact me to resolve the issue. All such requests must be submitted to me via email and prior to Saturday 11:59pm. I will not fix any technical issues on the day the homework is due. In other words, do not wait until the last day to complete the homework.

QUIZZES:

- All quizzes will be given in eLearning. Look for link in the current Unit on the course homepage.
- Quizzes will be posted on Thursdays and cover the material from current week's topic.
- Quizzes are due by the following Sunday 11:59pm. Due date and time will be shown in elearning. This means you will two-three days to review that week's lecture material and take the quiz.
- Each quiz will be fifteen (15) questions of multiple choice, fill-in the blank, T/F and mix-and-match styles.
- Each question is worth 0.5 point.
- You will have one (1) attempt for each quiz, so be prepared to take it once you start.
- You will have fifteen (15) mins to complete the quiz.
- There are no makeup quizzes. No exceptions. Any missed quiz will count as a zero (0).
- If you incur any technical difficulties, you can contact me to resolve the issue. All such requests must be submitted to me via email and prior to Saturday 11:59pm. **I will not fix any technical issues on the day the quiz is due.** In other words, do not wait until the last day to take the quiz if you are concerned about having technical problems.
- Your final grade will drop the lowest two (2) quiz scores.

EXAMS:

- Four (4) exams will be given during the semester. The first three will be online at the testing center. The last will be in person.
- Exam dates and times are shown in the calendar at the end of the syllabus.
- No exams will be dropped.

Exam Format:

- Exams 1-3 will be given at the testing center per the schedule in this syllabus.
- Exam 4 will be given in person either online or hardcopy.
- Each exam will be 60 questions and worth 200 points.
- You will have 90 minutes to complete the exam. Average time to complete it should be 70 minutes.
- Each exam will cover one unit of material as shown by the color coding in the schedule at the [end of the syllabus](#).
- The structure of all exams will be mix of question styles divided as follows:
 - 75% multiple choice, true/false, matching questions
 - 25% fill-in the blank, short answer (1 paragraph maximum)
- There may be bonus points on exams.
- Everything in the textbook is fair game for lecture exams, regardless of whether or not it is presented in class. You are responsible to use the information contained in the entire chapters to prepare for exams.
- For exam purposes only, when there are conflicts between the information contained in textbook (or any other outside source) and the material presented in class, material presented by the professor in class will rule over what is written in textbook/outside source.
- Do not miss exams! (If exams are missed, you must be able to verify your reason for missing).
- Make-up lecture exams are usually not given. In extreme circumstances make-up exams will be given and will be different than that specified above. Legitimate Reasons to make-up missed lecture exams are as follows: death of an immediate family member and bona fide medical emergencies. Any reason must be presented in writing prior to the exam start as is reasonably possible.
- The following penalty will be applied to **anyone** that misses an exam at the testing center. A student will only be able to score a maximum of 75% (150 out of 200) on any makeup exam.

Testing Center Instructions:

- The Testing Center is located at 3020 Waterview Parkway, SP2 First Floor, Suite 11.175, Richardson, TX, 75080.
- Testing center hours and guidelines are found <https://ets.utdallas.edu/testing-center/students>
- **Students MUST reserve their seat for testing at least 48 hours prior to the exam date.**
- Students MUST present their PHYSICAL student ID Comet Card each time to be admitted to the test. If you do not have an UTD photo ID presently, please make arrangements to get one before the first exam. <https://www.utdallas.edu/cometcard/cometcard/> **No other form of identification is acceptable. A driver's license will not work as that does not have your student ID.**
- Student must have the following information:
 - Course Prefix + Course Number + Course Section Number + Exam Name
 - Instructor's Name
- No outside materials are required to take the exam. If the student violates this policy, an incident report will be filed and submitted to the instructor.
- Students are monitored while testing. The testing environment and its computers are electronically monitored and recorded to include real-time video and screen captures.
- Any accommodations required by the OSA will be honored at the Testing Center.
- The Exam link will be in the "Exams" folder in elearning on left side navigation.

Exam Grading:

- You will receive your exam score when the free response questions are graded. I try to have these scores posted within 5 business days after the last day of the exam.
- Graded exams will not be reviewed in lecture or workshop. Answers to the exam will be available to review in elearning once the scores are posted for the class.
- All questions/issues regarding exam questions and grades must be resolved within the week after the exam is made available to review. After this week, the exam scores will be considered final. You may schedule an office hour time (see first page for link) to discuss any questions that you might have.

WORKSHOPS:

- There will be a workshop each week. See last page for schedule of topics.
- Attendance will not be taken.
- Each workshop will be recorded and the recording will be available in the BIOL 2312 Teams General page.
- Workshops are for enhancing/reviewing/extending lecture material and increasing critical thinking/analysis.
- Workshop Assignments will be assigned during the workshop. Details are below.

WORKSHOP ASSIGNMENTS:

- These will be provided in your workshop Blackboard course, BIOL 2312.001 (note this is the main lecture).
- Workshop Assignments will be due **Tuesday @11:59pm** of the week they are assigned. See schedule at end of syllabus.
- Any assignment submitted late will not be accepted.
- There will be multiple questions in various formats to complete and should take 30-45 minutes.
- Submissions will be graded in elearning.
- Any question about grading must be directed to a graduate TA and discussed within 7 days of receiving your score. After 7 days, your score is final for that assignment. If you disagree with your graduate TA's grading or cannot get a reply from your graduate TA, you can then contact me with the original email sent to the graduate TA. If this dated email is not provided, I will reference you back to your graduate TA.
- These assignments must contain unique work.
- Each workshop submission will be worth fifteen (15) points.
- Your final grade will drop the lowest (1) score.

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GRADING POLICY

- You will receive the same letter grade for **both** BIOL 2312 and BIOL 2112.
- Grades for the course will be calculated as follows:

	Qty	Drops	Points per	points possible
learn it	42	6	3	108
homework	14	2	10	120
quizzes	14	2	7.5	90
workshop	14	2	15	180
exams	4	0	200	800
TOTAL POINTS POSSIBLE				1298
Attendance (bonus added to total points possible)				Up to 30

- Your score percentage will be the total points earned (learn it, homework, quizzes, workshop, exams) + any attendance points divided by the "TOTAL POINTS POSSIBLE" amount shown above. This percentage will be rounded to the nearest integer, e.g., 89.5 = 90; 89.49 = 89.
- Your final letter grade will be based on the percentage calculated in the prior bullet and placed against the scale grading scale below.
- Grading scale:

Grade	% cut off	C+	77
A+	97	C	74
A	94	C-	70
A-	90	D+	67
B+	87	D	64
B	84	D-	60
B-	80	F	59 or lower

- Grades are determined based only on course performance. Grades are not based on need or effort. No points or fraction of a point will be awarded to increase to the next letter grade. **NO EXCEPTIONS.**
- I do not curve grades. Do not ask, beg, cry or plead.
- In compliance with FERPA, grades and/or grade information will not be given to anyone other than the student and will not be discussed over the phone or emails.

CHECKLIST TO COMPLETE BEFORE EXAM 1

- Figure out where the Testing Center is located
- Read over the Testing Center requirements including dress code
- Locate your UT Dallas Comet ID Card and bring it with you to the Testing Center

LEARN IT EXERCISE AND HOMEWORK STEP-BY-STEP INSTRUCTIONS

- There are 4 question sets each week (3 Learn it and 1 Homework)
- 2 attempts are provided per question set.
- Best attempt will be saved as your score.
- Links for each set are posted in eLearning BIOL 2312 course.

STEP-BY-STEP:

1. Click eLearning link to begin a question set.
2. MindTap will open in a new window, login if needed (you should only have to login for the first set for the entire semester)
3. Read assignment.
4. Answer questions by selecting the drop down or radio buttons.
5. click "submit" when you have answered all questions to your liking, score will be shown at top.
6. if you have full points, you are done and can move to submit assignment for final score (second attempt of zero will be ignored)
7. if you don't have full points, you can complete a second attempt.
8. questions will now show "..." next to the answer choices which provides feedback to assist in answering the questions on the second attempt.
9. click on "..." and review feedback.
10. click "try again" (bottom of assignment) to begin second attempt.
11. update any answers you determined are incorrect after reviewing feedback!
12. click "submit" to see the score of second attempt.
13. highest of the two scores will be recorded.

TENTATIVE ACADEMIC CALENDAR

NOTE: The professor has the right to change the syllabus at any point during the semester.

Date	Lecture Topic	Workshop
01/20/2026	Introduction and syllabus, Ch.38 Intro to Animal Organization and Physiology	Intro to Animal Organization and Physiology
01/22/2026	Ch.38 Intro to Animal Organization and Physiology	
01/27/2026	Ch 42. The Endocrine System	The Endocrine System
01/29/2026	Ch 42. The Endocrine System	
02/03/2026	Ch 49. Animal Reproduction	Animal Reproduction
02/05/2026	Ch 49. Animal Reproduction	
02/10/2026	Ch 39. Neurons and synapses	Neurons and synapses
02/12/2026	Ch 39. Neurons and synapses	
02/09/2026-02/13/2026	Mon-Thu(Testing Center Exam 1)	Check testing center schedules
02/17/2026	Ch 40. Nervous system	Nervous system
02/19/2026	Ch 40. Nervous system	
02/24/2026	Ch 41. Sensory System	Sensory System
02/26/2026	Ch 41. Sensory System	
03/03/2026	Ch 43. Muscles, Bones and Body Movement	Muscles, Bones and Body Movement
03/05/2026	Ch 43. Muscles, Bones and Body Movement	
03/10/2026	Ch 44. The Circulatory System	The Circulatory System
03/12/2026	Ch 44. The Circulatory System	
03/09/2026-03/13/2026	Mon-Thu (Testing Center Exam 2)	Check testing center schedules
03/16/2026-03/22/2026	***** Spring Break-No Classes*****	
3/24/2026	Ch 44. The Circulatory System	The Circulatory System
3/26/2026	Ch 46. The Respiratory System	The Respiratory System
3/31/2026	Ch 46. The Respiratory System	
4/2/2026	Ch 48. Osmoregulation, Excretion, & Thermoregulation (Urinary)	Urinary Part 1(non-vertebrate)
4/7/2026	Ch 48. Osmoregulation, Excretion, & Thermoregulation (Urinary)	Urinary Part 2 (Vertebrate)
4/9/2026	Ch 48. Osmoregulation, Excretion, & Thermoregulation (Urinary)	
4/14/2026	Ch 47. Digestive System and Animal Nutrition	Digestive System and Animal Nutrition
4/16/2026	Ch 47. Digestive System and Animal Nutrition	
04/13/2026-04/16/2026	Mon-Thu(Testing Center Exam 3)	Check testing center schedules
4/21/2026	Ch 45. Defenses against disease	Immune (Innate immunity+ Ab structure))
4/23/2026	Ch 45. Defenses against disease	
4/28/2026	Ch 45. Defenses against disease	Immune (Adaptive T-cells, B cells))
4/30/2026	Ch 20. Development of Evolutionary Thinking	
5/5/2026	Ch 21. Microevolution	No workshop
5/7/2026	Ch 21. Microevolution	
5/14/2026 8am or 10am	FINALS WEEK - IN PERSON (Exam 4)	Check testing center schedules

