



BIOL 2402.083 Anatomy and Physiology II - Online

Course Syllabus: Spring 2026

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
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This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description: 4 credit hours. BIOL 2402 is a continuation of BIOL 2401. The course includes a study of the structure and function of human organ systems including circulatory, digestive, respiratory, urinary and reproductive. Animal dissection is a required component of laboratory activity. The natural sciences and allied health divisions of the college strongly recommend that CHEM 1406 or CHEM 1411 be the first course in the pre-nursing/pre-MLT sequence and be taken prior to enrolling in BIOL 2401. The topics covered in CHEM 1406 or CHEM 1411 are foundational to the anatomy & physiology courses.

Prerequisite: BIOL 2401 with a final grade of C or better.

Required Instructional Materials:

Inclusive Access: NTCC has negotiated with the Publisher to obtain a discounted price for your lecture course materials. Your eBook and Connect Access Code are included with your tuition and will be available through Blackboard on the first class day (see more information in the Start Course Here folder in Blackboard). The materials are required for your class and essential in your success. If you also determine that you would like a printed copy of your text in addition to your inclusive access, loose-leaf copies will be available in the College Store at a discounted price. You may opt out of purchasing your materials from the College Store through the Census Date for the course. If you choose to opt out, you will be responsible for purchasing your Connect Access Code from another vendor. You will receive a refund for the Inclusive Access if you opt out.

Inclusive Access: Hole's Human Anatomy & Physiology with Connect Plus/SmartBook Welsh
McGraw Hill Copyright 22 Edition 16 ISBN 9781266310515

Lab:

Custom A & P II Lab Kit from Carolina Distance Learning: # 581877DV.

The lab kit redemption card can be purchased directly from NTCC's College Store. Please see the College Store Website: <http://www.ntccbookstore.com/> for information on obtaining your lab kit.

Please order your kit as soon as possible prior to the start of the semester so you will be prepared to begin the lab activities on time. If you live in close proximity to another student in the class, it is certainly permissible to share the cost of a lab kit and work in partnership with another student. See additional information under Evaluation/Grading Policy. If you share a kit, be sure to communicate this with me.

Recommended Reading(s): Chapters 13 through 24 in the textbook

Optional Instructional Materials: None.

Minimum Technology Requirements:

Laptop or computer with Chrome browser
Access to high speed daily internet
Microsoft Office 365 (available as a free download for all NTCC students)
Calculator. No programmable calculators or cell phones are allowed on exams.

Required Computer Literacy Skills:

Ability to use a web browser to access NTCC Blackboard System for course information, eBook and Connect assignments
Ability to access NTCC student email system and communicate professionally and competently with instructor
Ability to create and complete Word documents, save on your computer and upload into Bb assignment links

Core Curriculum Purpose and Objectives:

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning.

Courses in the foundation area of **life and physical sciences** focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

College Student Learning Outcomes:

Critical Thinking Skills

CT.1

Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

Communication Skills

CS.1

Students will effectively develop, interpret and express ideas through written communication.

Empirical and Quantitative Skills

EQS.1

Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form.

EQS.2

Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

Team Work

TW.2

Students will work with others to support and accomplish a shared goal.

Course Student Learning Outcomes:

1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.
7. Apply appropriate safety and ethical standards.
8. Locate and identify anatomical structures.
9. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
10. Work collaboratively to perform experiments.
11. Demonstrate the steps involved in the scientific method.
12. Communicate results of scientific investigations, analyze data and formulate conclusions.
13. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.

These represent the major learning outcomes for this course. You will see them referenced for all learning activities and assignments in Blackboard.

Lectures & Discussions:

Week 1- Chapter 13 Endocrine System and Chapter 14 Blood and Chapter
Week 2- 15 Cardiovascular System and 16 Lymphatic System and Immunity
Week 3- Chapter 17 Digestive System and Chapter 18 Nutrition
Week 4- **Midterm Exam and Lab Practical 1**; Chapter 19 Respiratory System
Week 5- Chapter 20 Urinary System and Chapter 21 Balance
Week 6- Chapter 22 Reproductive Systems
Week 7- Chapter 23 Pregnancy, Growth, and Development and Chapter 24 Genetics
Week 8- **Final Exam and Lab Practical 2**

Evaluation/Grading Policy:

Lecture Average 70% of final course grade

Lab Average 30% of final course grade

Grading Scale

A = 100 – 90.0%

B = 89.9 – 80.0%

C = 79.9 – 70.0%

D = 69.9 – 60.0%

F = <59.9

The “lecture” component of this course will consist of online homework/quizzes through McGraw-Hill Connect and examinations with the following weight in calculating final lecture average:

10% Connect Online Assignments

- SmartBook assignments are beneficial to your understanding of the material.
 - **These are not figured into your course grade;** however, students have said that doing the SmartBook exercises improved their grades.

- This guided reading helps identify areas that you are having trouble understanding.
- These should take an average of 60 minutes.
- Homework assignments are required and figured into the course grade.
 - These can be done 2 times before the due date. Five % will be deducted for the 2nd try.
 - There is no time limit, so it is advisable to start early and work on this all during the week.
 - Use of the eBook and hints are available with no deductions.
 - Feedback will be shown after submitting each attempt. After the first attempt, you will see what questions you got correct or incorrect. After the 2nd attempt, a more detailed feedback is given.
 - Printing is allowed.
 - Study attempts: After the due date, these homework assignments will be available for practice without changing your grade.
- Quizzes are required and figured into the course grade.
 - Usually 20 – 25 questions are pulled from a pool of questions. You may see new questions each time.
 - Quizzes have a time limit of 25 minutes.
 - Study attempts: After the due date, these will be available for practice without changing your grade.
 - These are good to do multiple times after the due date to help review for the exams since you may see new questions each time.
- What are **Study Attempts**? Study attempts allow students to retake and review the material, as well as get feedback, as many times as desired without the attempt affecting the grade. These are not available until after the due date. This is especially beneficial for quizzes because in many cases, a set number of questions are pulled from a larger pool of questions. New questions may be displayed each time the study attempt is taken. However, this option prevents the ability to give an extension if the due date is missed. If the due date is missed for any reason for a homework or quiz assignment, a zero will be given.
- For both Connect Homework and Connect Quizzes, **don't wait until the last day or two to complete the assignment**. If you have Connect problems, that will NOT be a reason to be late. It is your responsibility to contact Connect and get any problems resolved. However, before you get in touch with Connect, send me an email telling me your problem. This way I can check to make sure that everything is set correctly on my end. Since it may take me 24 hours to get back with you, this is even more reason not to wait until the last minute.
- The two lowest assignment grades are dropped. The grade is continuously recalculated every time a grade is entered so that the grade you are seeing is current.

Assessments and Exams:

15% Assessments 1-4 (5% each)

5% Student Learning Outcomes (SLO) Assessments

20% Midterm Exam (proctored)

20% Final Exam (proctored)

There is a graded assessment for each of the four units we are covering. The unit assessments are intended to prepare you for the midterm and final exams. You will take these using Respondus Lockdown Browser.

There are also SLO Assessments given throughout the course to assess the Student Learning Outcomes listed above.

The midterm and final exams (as well as two lab practicals, one taken with each of these exams) are proctored exams which you must take in person at a college testing center or public library with an official proctoring service. Failure to take these exams will result in a grade of “F” for the course. If you reside in the NTCC service area, you must take the proctored exams on campus at the NTCC Testing Center on the main campus. The testing center is located on the main campus of NTCC in the Student Services Building. Be sure to check the Testing Center’s hours and policies. If you do not reside in the NTCC service area, you will be asked to contact the instructor during the first two weeks of the semester and identify a college testing center (preferred) or public library with an official exam proctoring service where you can be proctored while taking these exams. Please be aware that other college testing centers or libraries may charge a fee for you to use their facilities. You will need to provide the physical address, email address and phone number for the proposed proctoring location. The instructor will contact the center to verify the appropriateness of the location for approval. Proctored exams must be taken using the testing center’s network. Mobile hot spots are not acceptable when taking the final exam.

The “Lab” component of this course will consist of hands-on laboratory activities through Carolina Biologicals Lab Kit for A&P II, as well as two lab practicals:

10% Lab Carolina Biologicals Hands-on Labs.

- If you live in close proximity to another student, you may certainly split the cost of the lab kit (you must do this on your own risk) and work together on the lab component of the course. Working in partnership with another student means that both learners should contribute to the laboratory atmosphere in learning from each other and yet, complete each lab report in your own words (**do not simply copy** from one another). Collaboration between student learners on the lab exercises can be beneficial if you work with each other to enhance the learning experience. **Please be sure to report to your instructor any lab partner grouping that you develop.** Each partner must be present during the completion of the lab activities and participate fully in the work. Each student must complete their own lab reports, take their own photos, and sign and submit them as described in the lab exercise instructions.
- Lab Reports are graded based on documented evidence of completion of the lab exercise (photos included in your lab report and your signature evident) and successful answering of questions presented. Short answer questions are expected be answered in complete sentences in **your own words**.
- All assignments including lab reports need to be submitted on the due date by the time specified. Labs will generally be graded within 1-2 weeks of submission.
- One lab assignment grade will be dropped. The grade is continuously recalculated every time a grade is entered so that the grade you are seeing is the grade with the lowest grades dropped.

20% Online Lab Practicals (proctored – see proctoring requirements in Exams section above)

- Two lab practicals will be given during the semester. See the schedule for the dates that the lab practicals will be available to take. These will consist of multiple choice and fill in the blank questions. Correct spelling is required. Approximately 0.5 points will be deducted for misspelled words.

- Lab practical #1 will cover lab material from Chapters 13 – 18
- Lab practical #2 will cover lab material from Chapters 19 – 24

Other Course Requirements:

This is an online course in Anatomy and Physiology. Both lecture and laboratory study materials and assignments will be delivered through the Blackboard Learning Management System at NTCC. Students should ensure that they have the appropriate hardware, software, and technical skills for completing all assignments, labs and tests. Be sure to read the contents of the “START HERE” folder in Blackboard so that you fully understand all additional course requirements. If you have not taken a course in Blackboard at NTCC before, it is recommended that you review the basic Blackboard Skills of submitting assignments and sending messages. These tutorials can be found on the Student Resources tab under Blackboard Assistance as well as in the **Important technical requirements, information and support** folder found in the “START COURSE HERE” folder.

Contact me with any questions you may have.

Communication: NTCC email is the official form of communication used in this course and by the college. I expect that you will regularly check your email and that you will email me using your NTCC email account. Announcements will also be emailed to you frequently. When you email me, I will respond in a timely manner, within 24 hours on weekdays and within 48 hours on weekends.

Student Responsibilities/Expectations:

Northeast Texas Community College is a “community of scholars.” Please remember that you and all students in this class are pursuing very important goals in your lives. As scholars, I expect every student to be courteous to other students, the teaching assistants, and the instructor in both lecture and laboratory experiences. It is expected that you will adhere to all college policies on academic honesty.

Institutional/Course Policy: The last day to drop with a “W” is **Thursday, April 30, 2026**. It is the student’s responsibility to withdraw by that date if they are not able to complete the course.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC’s website (<http://www.ntcc.edu/>) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

Statement Regarding the Use of Artificial Intelligence (AI) Technology:

Absent a clear statement from a course instructor, use of or consultation with generative AI shall be treated analogously to assistance from another person (collusion). Generative AI is a subset of AI that utilizes machine learning models to create new, original content, such as images, text, or music, based on patterns and structures learned from existing data (Cornell, Center for Teaching Innovation). Unauthorized use of generative AI tools to complete an assignment or exam is not permitted. Students should acknowledge the use of generative AI and default to disclosing such assistance when in doubt. Individual course instructors may set their own policies regulating the use of generative AI tools in their courses, including allowing or disallowing some or all uses of such tools. Students who are unsure

of policies regarding generative AI tools are encouraged to ask their instructors for clarification. (Adapted from the Stanford University Office of Community Standards-- accessed August 31, 2023)

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Timeline (*instructor reserves the right to adjust this timeline at any point):

March 23	First Day of Class
March 28	Syllabus Acknowledgment Quiz and Introductions Due
April 1	Unit 1 Labs and Assignments Due
April 3	Unit 1 & SLO Assessments Due
April 13	Unit 2 Labs and Assignments Due
April 15	Unit 2 & SLO Assessments Due
April 15 – 17	Midterm Exams
April 27	Unit 3 Labs and Assignments Due
April 29	Unit 3 & SLO Assessments Due
April 30	Final Day to Withdraw with Grade of "W"
May 9	Unit 4 Labs and Assignments Due
May 11	Unit 4 & SLO Assessments Due
May 12 – 13	Final Exams
May 16	Spring Graduation