BIOL 2301: Human Anatomy and Physiology 1
3 Semester Credit Hours
BIOL 2101: Human Anatomy and Physiology 1 Lab
1 Semester Credit Hour

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Monday/Tuesday/Thursday 4:00PM - 4:30PM; Pampa High School

BIOL 2301 Course Description: This course is an introduction to basic biological principles applied to the human. It encompasses detailed studies of the human body plan, cells, and tissues of the integumentary, skeletal, muscular, nervous, and endocrine systems.

BIOL 2101 Course Description: The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

Statement of Purpose: Human Anatomy and Physiology 1 partially satisfies the requirements for the Associates Degree at Clarendon College and is designed for transfer to a senior college.

BIOL 2301 Required Texts: Your textbook is available in web view and PDF for **free**. You can also choose to purchase on iBooks, get a print version via the campus bookstore or from OpenStax on Amazon.com.

> You can use whichever format you wish; however, web view is recommended – the responsive design works seamlessly on any device. If you buy on Amazon, make sure you use the link on your book page on openstax.org so that you get the official OpenStax print version. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.)
> *Anatomy and Physiology* from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042, www.openstax.org/details/anatomy-and-physiology

BIOL 2101 Required Text - Lab Manual*: Human Anatomy & Physiology Laboratory Manual with Mastering A&P, Cat Version, Update 10th edition* by Elain N. Marieb and Susan Mitchell

Supplies: textbook, lab manual, pencils, colored pencils, 3” -3 ring binder

Student Rights and Responsibilities: Student Rights and Responsibilities are listed on the College website at:

http://www.clarendoncollege.edu/Resources/Student%20Services/StudentRightsResponsibilities.pdf

Methods of Instruction: This course will utilize lecture/discussion, audio-visual materials, the Canvas student portal, and individualized lab instruction.

Core Objective Statement: In accordance with recommendations from the Texas Higher Education Coordinating Board, all life and physical science courses at Clarendon College will address the following core objectives:

- Critical Thinking Skills – including creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- Communication Skills – including effective written, oral, and visual communication.
- Empirical and Quantitative Skills – including application of scientific and mathematical concepts.
- Teamwork – including the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

Student Learning Outcomes for Lecture: Upon successful completion of Human Anatomy & Physiology I, the student should demonstrate these core objectives by being able to:

Critical Thinking Skills

- Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.

Communication Skills

- Describe the characteristics of life and the basic properties of substances needed for life.
- Describe the reasoning processes applied to scientific investigations and thinking.
- Describe human physiology and homeostasis as maintained by organ systems.

Empirical and Quantitative Skills

- Describe the structure of cell membranes and the movement of molecules across a membrane.

Student Learning Outcomes for Lab: Upon successful completion of Human Anatomy & Physiology I, the student should demonstrate these core objectives by being able to:

Critical Thinking Skills

- Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
- Describe the characteristics of life and the basic properties of substances needed for life.
- Describe human physiology and homeostasis as maintained by organ systems.

Communication Skills

- Describe the reasoning processes applied to scientific investigations and thinking.

Empirical and Quantitative Skills

- Describe the structure of cell membranes and the movement of molecules across the membrane.
- Be able to apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.

Teamwork

- Communicate effectively the results of investigations.
- Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.

Grading Policies: You will receive one letter grade for BIOL 2301 and one letter grade for BIOL 2101. That grade comes from the components described below.

BIOL 2301 Grading Policies:

1. **Class participation will count as 20%** of your final course grade.
    a. This grade comes from your participation in class discussions and exercises.
        i. If you choose not to participate in class discussions, you will receive no credit.
    b. For every three unexcused absences (either to lecture or lab) you will have 10 points deducted from your class participation grade.
        i. If you leave during class, you will receive an unexcused absence.
        ii. If you arrive late to class, you will receive an unexcused absence.
        iii. If you are asked to leave the class due to disrespectful behavior, you will receive an unexcused absence.
2. **Quizzes will count as 20%** of your final course grade.
    a. Each quiz covers material since last test (not comprehensive).
    b. The quiz will utilize a variety of question formats (objective, matching, multiple choice, true/false, etc.)
    c. Quizzes must be taken in class in the presence of the instructor.
3. **Lecture exams will count as 60%** of your final grade
    a. All lecture tests, including the final, will be weighted equally.
    b. Each test covers the material since the last test (not comprehensive).
    c. The tests will utilize a variety of question formats (objective, matching, multiple choice, true/false, etc.)
    d. I will drop you lowest lecture test grade, excluding the final which must be counted.
    e. You will take these exams on a **scantron, form no.882-E** (the long skinny one with 50 questions on each side).
        i. These or for sale in the college bookstore
        ii. These MUST be taken in PENCIL.

BIOL 2101 Grading Policies:

1. **Participation will count as 15%** of your final lab grade.

    a. This grade comes from your participation in lab discussion and exercises.
        i. If you choose not to participate in lab discussions, you will receive no credit.
    b. For every three unexcused absences (either to lecture or lab) you will have 10 points deducted from your class participation grade.
2. **Lab reports and daily exercises will count as 45%** of your final grade
    a. This grade comes from your accurate completion of lab reports and exercise questions.
        i. If you choose not to complete lab reports, you will receive no credit.
    b. All lab reports, exercise questions, and quizzes will be weighted equally.
3. **Lab practical's will count as 40%** of your final grade.
    a. All lab practicals will be weighted equally.
    b. Each pratical covers the material since the last exam (not comprehensive).
    c. The lab practicals will utilize a variety of question formats (objective, matching, multiple choice, true/false, etc.)

Grading Scale for the Course:

89.5% - 100%	A
79.5% - 89.4%	B
69.5% - 79.4%	C
59.5% - 69.45	D
59.4% and below	F

Grievance/Appeals

If you have a dispute concerning your grade or policies in this class, it is the student's responsibility to contact the instructor to discuss the matter. Should things remain unresolved, please follow the procedures described in the Clarendon College Student Handbook or College Policy Manual.

Academic Integrity: **An Excerpt from Clarendon College's Student Handbook**

Failure to comply with lawful direction of a classroom instructor is a disruption for all students enrolled in the class. Cheating violations include, but are not limited to: (1) obtaining an examination , classroom activity, or laboratory exercise by stealing or collusion; (2) discovering the content of an examination , classroom activity, laboratory exercise, or homework assignment before it is given; (3) using an unauthorized source of information during an examination , classroom activity, laboratory exercise, or homework assignment ; (4) entering an office or building to obtain unfair advantage; (5) taking an examination for another person; (6) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person; (7) altering grade records; (8) using any unauthorized form of electronic communication device during an examination, classroom activity, or laboratory

exercise; (9) Plagiarism. Plagiarism is the using, stating, offering, or reporting as one's own, an idea, expression, or production of another person without proper credit.

Disciplinary actions for cheating in a course are at the discretion of the individual instructor. The instructor of that course will file a report with the Executive Vice President of Academics and Student Affairs when a student is caught cheating in the course, whether it be a workforce or academic course. The report shall include the course, instructor, student's name, and the type of cheating involved.

Students who are reported as cheating to the Executive Vice President of Academics and Student Affairs of Instruction more than once shall be disciplined by the Executive Vice President of Academics and Student Affairs. The Executive Vice President of Academics and Student Affairs will notify all involved parties within fourteen days of any action taken.

Classroom Conduct

I will show you the respect you deserve as a student. I, in return, expect respectful behavior from you. Because the following actions cause disruption in the classroom and therefore affect the ability of students to learn, I have strict policies concerning them. Disrespectful behavior on your part will result in deductions from your class participation grade and/or removal from the classroom.

Disrespectful behavior includes…

- **Arriving late**
- **Leaving the room during class time**. Plan restroom visits before or after class—not during class. If special needs exist, please make prior arrangements.
- **Using electronic communication devices**. This includes cell phones, pagers, iPods, etc. These are not allowed during class time. If special needs exist, please make prior arrangements.
- **Sleeping in class**
- **Talking in class** – side conversations; class time is not the time to visit with your fellow classmates. If you do, I will ask you to leave the classroom.
- **Using headphones/earbuds**. If you do, I will ask you to leave the classroom.
- **I do NOT allow abusive, obscene, or offensive clothing, jokes, or behavior.**

Class Policies

1. **Absences**: Please take class attendance seriously. You are here to learn all you can learn, to build a body of knowledge to help you in your career and/or to give you satisfaction in the future. Students who are motivated come to class. **You are responsible for the material covered in class (lecture or lab) even if you are absent**. *Unexcused absences will count against your class participation grade as discussed in the grading policy*.

2. **Excused Absences**: Make-ups for tests will be allowed ONLY if absences are excused. Excused absences can result from:

a. Illness on the part of the student.
b. Severe illness or death in your immediate (not extended) family.
c. College sanctioned extracurricular activities.
d. Unfavorable weather conditions that prevent students from reaching the college.

If you wish for your absence to be excused, you should telephone or e-mail me in advance of the absence; even in emergencies, it usually is possible for you to get word to me about the absence. When you return, you must furnish proof of the reason for your absence if you wish for it to be excused.

3. **Make-up work**: late or unexcused work will not be accepted. Students who have excused absences MUST let me know before the test is given that we need to schedule a make-up. In most cases, the tests must be taken PRIOR to the absence in order to receive full credit. **If you take the test after it has been given to the class, you will receive a 10% penalty per school day that passes until the make-up.** To avoid the penalty, MAKE SURE YOU TAKE A MAKE-UP TEST BEFORE YOU LEAVE.
4. **THERE WILL BE NO MAKE-UP LAB PRACTICALS**. Because these tests invovle practical sections, they can't be set up time and again. If you miss one of these tests, you will have to take an essay test. The take home message is: PLAN TO ATTEND THESE DAYS!
5. **Final Exams**: Students must take the final for each of their academic courses. The schedule of final exam times is published at the beginning of the semester. Do not make plans to leave school before your scheduled final exam. I will not give any early finals except in extreme emergencies after students have provided documentation of said emergency.
6. **Scholastic Honesty**: I adhere to a strict policy regarding academic honesty. Anyone who is dishonest in any way will receive a zero on that assignment or exam with no opportunity to make up the zero and may be dropped from the course with a grade of F. Note that dishonest behavior includes both the act of copying someone else's work as well as allowing someone to copy your work. Both students are equally guilty and will be equally punished.
7. **Electronic Communication/Entertainment Devices**: Below is an excerpt from Clarendon College Policy 1541:

> …Cell phones, pagers, and other personal electronic devices must be off and out of sight in classrooms, laboratories, the library, study spaces, and other academic settings and during such events as plays, concerts, lectures, and College ceremonies…These electronic devices may be turned on and set on silent mode only with the expressed consent of the instructor…faculty members may have individual policies related to cell phones, pagers, and other personal electronic devices outlined in their syllabi…(that) may include penalties for violation…
>
> **Cellphones**: cellphone use is **prohibited.** They must be turned off or silent and, in your backpack, purse, or pocket inaccessible to you during class time. No calls, no texting, no social media access during class time on your **smartwatch** either!

Laptops: Laptops must be used in class for appropriate purposes, i.e. following the lecture PowerPoint or taking notes.
Inappropriate use, i.e. Facebook, Pinterest, gaming, etc. may result in loss of privilege to use your electronic device in the classroom

Failure to comply with these rules will forfeit your privilege to use technology in the classroom and is grounds for dismissal from the class. You will receive a grade of F. A first offense will result in confiscation of the device for one day. A second offense will result in loss of the device for one week. A third offense will result in loss of the device for the remainder of the semester.

8. **Accommodations**: Contact Janean Reish Directly at 806.874.4837 or Janean.reish@clarendoncollege.edu. Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, it is your responsibility to notify the Office of Student Services. We will then work with you to make whatever accommodations we need to make.
9. **Withdrawal**: If you decide that you are unable to complete this course or that it will be impossible to complete the course with a passing grade, you may drop the course and receive a "W" on your transcript instead. Withdrawal from a course is a formal procedure that you must initiate. If you do not go through the formal withdrawal procedure, you will receive a grade of "F" on your transcript. A student is permitted to drop a course if he/she obtains an official drop slip from the office and has the instructor sign the slip before the 12th class week.
    a. **Remember, a student is only allowed to drop the same class twice before he/she will be charged up to triple the tuition amount for taking the class a third time or more. Furthermore, starting with the Fall 2007 semester, students in Texas may only drop 6 courses throughout their undergraduate career. After 6 courses, he/she will no longer be able to withdraw from any classes**.
    b. If you think you need to drop this course, please talk with me about it first. It is possible that there is something you can do to still pass the course. Don't hurt your chances for a passing grade in the course by not attending labs or taking exams before we have discussed your situation.
    c. **The last day to withdraw from this course with a "W" is November 14.**

Studying: This course covers a lot of material and will move fast! Make sure that you do not get behind and schedule for regular study time. Needed study time will vary individually, but at least 8-10 hours per week is recommended outside of class. The purpose of lecture is to further explain and reinforce comprehension of the reading material. It is in your best interest to complete reading assignments before coming to class. If you are having trouble with a topic or particular problems, please contact me for an appointment during office hours.

Course Outline: the essence of life is change and so too this syllabus. As situations in the classroom and laboratory arise, modifications may have to be made—particularly regarding the course calendar. All attempts will be made to keep these changes to a minimum.

Week of	Lecture topics	Student learning outcome	Lab activities	Student learning outcome
Aug 20	Welcome to class; Syllabus; Intro. Student Portal; Ch 1: Intro to Human Body	Use anatomical terminology to identify and describe locations of major organs of each system	No lab	
Aug 26	Ch 1: The Human Body – An Orientation Ch 3: The Cellular Level of Organization	Use anatomical terminology to identify and describe locations of major organs of each system.	Exercise 1: The Language of Anatomy Exercise 2: Organ Systems Overview	Apply appropriate safety and ethical standards Locate and identify anatomical structures
Sept 2	Ch 3: The Cellular Level of Organization	Explain interrelationships among molecular, cellular, tissue, and organ functions in each system	Exercise 3: The Microscope Exercise 4: The Cell – Anatomy and Division	Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations
Sept 9	Ch 4: The Tissue Level of Organization	Explain interrelationships among molecular, cellular, tissue, and organ	Exercise 6: Classification of Tissues	Demonstrate the steps involved in the scientific method

		functions in each system		
Sept 16	**Monday – Exam 1** Ch 5: The Integumentary System	Explain contributions of organs and systems to the maintenance of homeostasis	Exercise 6: Classification of Tissues	Demonstrate the steps involved in the scientific method
Sept 23	Ch 6: Bone Tissue and the Skeletal System Ch 7: The Axial Skeleton	Explain contributions of organs and systems to the maintenance of homeostasis	**Lab Practical #1**	
Sept 30	Ch 8: The Appendicular Skeleton **Friday – Exam 2**		Exercise 8: Overview of the Skeleton Exercise 9: The Axial Skeleton	Communicate results of scientific investigations, analyze data and formulat conclusions
Oct 7	Ch 9: The Joints		Exercise 11: The Appendicular Skeleton	
Oct 14	Ch 10: The Muscular System	Describe modern technology and tools used to study anatomy and physiology	**Lab Practical #2**	
Oct 21	Ch 11: The Muscular System		Exercise 12: Microscopic anatomy, organization, and classification of skeletal muscle Exercise 13: Gross Anatomy of the Muscular System	Use critical thinking and scientific problem-solving skills, including but not limited to, inferring, integrating, synthesizing, and summarizing,

				to make decisions, recommendations and practices.
Oct 28	Ch 12: The Nervous System and Nervous Tissue		Exercise 13: Gross Anatomy of the Muscular System	Work collaboratively to perform experiments
Nov 4	Ch 13: Anatomy of the Nervous System **Exam 4**		**Lab Practical #3**	
Nov 11	Ch 14: The Somatic Nervous System		Exercise 15: Histology of Nervous Tissue Exercise 17: Gross Anatomy of the Cranial Nerves Exercise 19: Spinal Cord and Spinal Nerves	
Nov 18	Ch 15: The Autonomic Nervous System	Identify causes and effects of homeostatic imbalances	No Lab	
Nov 25	THANKSGIVING BREAK WEEK			
Dec 2	Ch 15: The Autonomic Nervous System		**Lab Practical #4**	
Dec 9	**Final Exam**			