PRAIRIE VIEW A&M UNIVERSITY

SYLLABUS

BIOL 2401 Anatomy and Physiology I
Fall 2023

Instructor:	Arielle Watson, DO
Section # and CRN:	P14 CRN (12509) and P94 CRN (12510)
Office Location:	E.E. O'banion Science Building, Suite 430
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Office Hours:	Tuesday and Thursday by appointment.
Mode of Instruction:	Face to Face
Course Location:	P14: Room 313, P94: Room 311
Class Days & Times:	P14: TR, 8:00- 8:50 am ; P94: TR , 4:00-5:50 pm
Catalog Description:	An introductory course examining the organization of a human body and the mechanisms for maintaining homeostasis. Topics include chemistry of life, cell and tissue structure, metabolism, skeleton, muscular, nervous, endocrine, and integumentary system. Designed for students who will pursue a career in nursing and allied health fields.
Prerequisites:	
Co-requisites:	
Required Texts:	**Bundle** **Anatomy & Physiology- An Integrative Approach (McKinley, 4th ed.)** **Anatomy & Physiology Laboratory Manual (McKinley, 4th ed.)** **McGraw Hill Connect** (online access code)
Recommended Texts:	Anatomy and Physiology Made Easy- An Illustrated Study Guide for Students By NEDU

Student Learning Outcomes:

	Upon successful completion of this course, students will be able to:	Program Learning Outcome # Alignment	Core Curriculum Outcome Alignment

1	Identify and summarize the steps of the scientific method and recognize their role in the context of a laboratory experiment	#1	Critical Thinking, Communication
2	List, identify, and classify the cellular organic macromolecules, specify the monomers for each, and explain their relevance to human structure and function.	#1	
3	Explain basic cellular functions such as protein synthesis, cellular respiration, DNA replication, and cell division.	#2, #3	Communication
4	Recognize the anatomical structures, explain physiological functions, and recognize and explain the principle of homeostasis applied to the integumentary, nervous, endocrine, muscular and skeletal systems	#4	
5	Perform Oral and Written communication of biomedical terms relative to the human body	#5	Communication
6	Collaboratively work through physiological case studies	#5	Teamwork
7	Demonstrate a critical understanding of biological physiological processes	#4	
8	Analyze quantitative and empirical biomedical datasets and graphs	#5	Empirical and Quantitative

C Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Exams – Each lecture and laboratory exam will focus on measuring the students understanding of the physiological processes and anatomical structures of the human anatomy.

Lecture: Minimum of four lecture exams will be given during the semester. Exams will consist of multiple-choice, short answer and essay questions. The exams will measure the student's ability to process anatomy and physiology lexicon, identify the structural similarities and differences, process physiological processes. In addition relate concepts to clinical application and communicate their thoughts in written format. **The lecture exams count for 30% of your grade.**

Laboratory: Minimum of four practical laboratory exams will be given during the semester. One laboratory practical will be oral format. The practical examinations consist of identification of anatomical parts and physiological functions. Models will be utilized to test your knowledge of these systems. **The laboratory exams accounts for 30% of your grade.**

Learnsmart
LearnSmart helps students succeed by providing a personalized learning path that's based on responses to questions (right or wrong), as well as how confident they feel about the answers they provide. The program also encourages the retention of the material by identifying concepts that students are likely to forget, and directing them back to portions of the e-book to help them solidify concepts. **The Learnsmarts will be due each week and count 10% of your grade.**

Exercises – written assignments designed to supplement and reinforce course material
On-line Assignments: will be answering a collection of questions discussing scientific concepts on the chapter by using composition, labeling, classification, sequencing, true and false, matching and essay question.

Biopac Laboratory Assignments: Students are engaged in scientific inquiry by performing in group data collection, analysis and write-ups. The students will perform exercises targeting muscular function, brain function, autonomic nervous system, exercise physiology and neurophysiology. **This will count 10% of your grade.**

Projects – web development or group assignments designed to measure ability to apply presented course materials.

Case studies/Biological Topic:
Students will collaboratively engage an assigned scientific topic discussed in the video presentation of their case study to the class on the assigned day. **This will count 10% of your grade.**

Comprehensive Final Exam is given at the end of each semester. The final exam accounts for 10% of your grade. The final exam schedule is set by the University. See attached final exam schedule for exact date.
***Do not schedule any activity during the final exam period (*see above dates).**

Critical Thinking, Empirical and Quantitative Core Assessment
Reaction Time Biopac (Lesson 11) assignment will measure the students ability to observe the effects of learning and physiological process on reaction times. It will also measure their ability to compare reaction times with two presentation schedules: fixed intervals and pseudo-random interval datasets. Lastly, they will calculate statistics of group mean, variance and standard deviation. This assignment will be referenced against the Association of American College and Universities Empirical and Quantitative rubric.

Teamwork, Oral and Written Communication
Case Study/Scientific Topic Core Assessment will measure the student's ability to research, analyze and communicate information for a given case study/scientific topic. Each student will be assigned to a group to discuss the requirements of the case study. Each member of the group will be responsible for providing a part for the oral video presentation. An example of a Scientific Topic is a comparison of Nervous system disorders including the background history, effected population, discovery and treatment of the disorder.

Grading Matrix

Instrument	**Value (points or percentages)**	**Total**
Lecture Exams	4 Lecture exams at 100 points ea.	30%
Laboratory Exams	4 Practical exams at 100 pts each	30%
Learnsmart	16 Learnsmarts	10%
Assignment (Online, Laboratory Assignments, Reaction Time, EOG, EEG Biopacs)		
10 Assignments		10%
CASE-STUDY/Video presentation		10%
Comprehensive Final Exam 100 points		10%

Grade Determination:
A = 100 – 90pts;
B = 89 – 80pts;
C = 79 – 70pts;
D = 69 – 60pts;
F = 59pts or below

Biology 2401 Lecture and Laboratory Schedule

B

Week	**Laboratory**		**Lecture**	**Online Assignments**
1	Welcome to A&P		Syllabus/Orientation to A&P	LearnSmart Chapter 1
	Safety Video/Forms Register for Connect		Chapter 1 The Sciences of A&P	LearnSmart Chapter 2
2	Exercise 2 Organs, Systems and Organization(Review)		Chapter 2 Atoms/Ions/Molecules	Assignment 1 Chapters 1 and 2
	Exercise 3 The Microscope		Chapter 2 Atoms/Ions/Molecules	Learnsmart Chapter 3
3	Labor Day (Monday) Biopac Lesson 11 Reaction Time		Chapter 3 Energy, Chemical Reactions, and Cellular Respiration	
	Exercise 4 Cell Structure and Membrane Transport		Chapter 3 Energy, Chemical Reactions, and Cellular Respiration	Learnsmart Chapter 4 Assignment 2 Chapters 3 and 4
4	Exercise 5 Histology/Review		Chapter 4 Biology of the Cell	

	Lab Exam I		**Lecture Exam I (Chapters 1 - 4)**	Learnsmart Chapter 5
5	Exercise 6 Integument		Chapter 5 Tissue Organization (Histology)	Assignment 3 Chapters 4, 5, 6
	Integument		Chapter 5 Tissue Organization (Histology)	Learnsmart Chapter 6
6	Exercise 7 The Skeletal System: Bone Structure and Function		Chapter 6 Integumentary System	Review
	Lab Exam II (Histology & Integumentary System)		**Lecture Exam II (Ch.5,6)**	Learnsmart Chapter 7,8
7	Exercise 8 The Skeletal System: Axial Skeleton		Chapter 7 Skeletal System: Bone Structure and Function	Assignment 4 Chapters 7,8
	Exercise 9 The Skeletal System: Appendicular Skeleton		Chapter 8 Skeletal System: Axial & Appendicular Skeleton	Learnsmart Chapter 9
8	Exercise 10 Articulations		Chapter 9 Skeletal System: Articulations	Assignment 5 Chapter 9
	Exercise 11 The Muscular System: Muscle Structure and Function		**Midterm** **Lecture Exam III (Ch.7,8,9)**	Review
9	**Lab Exam III**		Chapter 10 Muscle Tissue	Learnsmart Chapter 10-11
	Exercise 12 The Muscular System: Axial Muscles		Chapter 10 Muscle Tissue	Assignment 6 Chapter 10, 11
10	BIOPAC EMG 1		Chapter 11 Muscular System: Axial and Appendicular Muscles	
	BIOPAC EMG 2/Exercise 13 Appendicular Muscles		Continue Chapter 11	Learnsmart Chapter 12-13
11	Exercise 14 Nervous Tissues		Chapter 12 Nervous System: Nervous Tissue	Assignment 7 Chapters 12,13
	Exercise 15 The Brain and Cranial Nerves		Continue Chapter 12	
12	BIOPAC EEG 1		Chapter 13 NS: Brain and Cranial Nerves	
	BIOPAC EOG 1		**Lecture Exam IV** (Ch. 10-13)	Review

13	**Lab Exam IV**		Chapter 14 NS: Spinal Cord and Spinal Nerves	Learnsmart Chapter 14-16
	Exercise 16 The Spinal Cord, Spinal Nerves, and Reflexes		Chapter 15 NS: Autonomic Nervous System	Assignment 8 Chapters 14-16
14	Dissection		Chapter 16 NS: Senses	
	Thanksgiving Day		**Thanksgiving Day**	Review Previous Study Guides
15	Exercise 17 The Autonomic Nervous System		Review/Catch Up	Review
	Case Study/Video Submission		**Review Day**	Review
16	**Final Exam per PV Schedule**		**Final Exam (Chapters 1-16)**	End of Fall Semester

Student Support and Success

John B. Coleman Library
The library and its partners have as their mission "to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service" and to support the University's core values of "access and quality, diversity, leadership, relevance, and social responsibility" through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty.

Center for Academic Support
The Center for Academic Support (CAS) offers Tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Tutoring Center is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library

COMPASS
The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library

Writing Center
The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Location: Hilliard Hall 121

University Rules and Procedures

Disability statement (See Student Handbook):
Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):
You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.

2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.

3. Fabrication: use of invented information or falsified research.

4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)
The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such

disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):
Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy
Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process
Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Disability statement (See Student Handbook):
Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

TECHNICAL CONSIDERATIONS

***Minimum* Recommended Hardware and Software:**
- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, Internet Explorer or Firefox

Note: Be sure to enable Java & pop-ups

Participants should have a basic proficiency of the following computer skills:
- Sending and receiving email
- A working knowledge of the Internet
- Proficiency in Microsoft Word (or a program convertible to Word)
- Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

***Netiquette* (online etiquette):**
Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

***Technical Support*:**
Students should go to https://mypassword.pvamu.edu/ if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Office of Distance Learning at 936-261-3283

***Communication Expectations and Standards*:**
Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplish by the use of the discussion board. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it should be copied and pasted to the discussion board.