BIOL 3014 Anatomy and Physiology I
Summer I 2020

Instructor: Cleveland O. Lane, Jr., PhD.
Section # and CRN: 32675/32676- Z01/Z61
Office Location: E.E. Obanion Science Building, Suite 430V
Office Phone: 936-261-3173
Email Address: colane@pvamu.edu
Office Hours: Tuesday and Thursday 4:00-5:00 pm  Friday, By Appointment
Mode of Instruction: Internet: Asynchronous
Course Location: Online 32675/32676- Z01/Z61
Q&A TTH 10:00-11:00 am
Class Days & Times: Online
Catalog Description: This is a lecture/laboratory course in Physiology and Anatomy. The study of physiology and physiology are essential to understanding the human body. Lecture and laboratory exercises have been designed to provide an in-depth knowledge of human structure and function. A working theme throughout the course will emphasize the concept that what the body is capable of doing depends intimately on how it is constructed, and the body’s construction gives a strong indication of what it does. The physiological principle of homeostasis will be utilized to show how the “normal” interaction of structure and function is achieved and maintained by dynamic counterbalancing forces. This is an introductory course, and will serve as a foundation for students pursuing careers in the biomedical sciences.

Prerequisites:
Co-requisites: Lecture and Lab

Required Texts: Anatomy & Physiology (Saladin, 8th ed.) On line access code (Connect) Required
University Bookstore ISBN: Saladin 8e: Connect AC – 9781264588480

Recommended Texts:

Student Learning Outcomes:

<table>
<thead>
<tr>
<th>Upon successful completion of this course, students will be able to:</th>
<th>Program Learning Outcome # Alignment</th>
<th>Core Curriculum Outcome Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify and summarize the steps of the scientific method and recognize their role in the context of a laboratory experiment</td>
<td>#1</td>
</tr>
<tr>
<td>2</td>
<td>List, identify, and classify the cellular organic macromolecules, specify the monomers for each, and explain their relevance to human structure and function.</td>
<td>#1</td>
</tr>
</tbody>
</table>

1
Please note that this course requires effective time management by students in order to remain on schedule. Students should plan to allocate, at a minimum, the time required for the course when offered in an on-campus/face to face setting. As a rule of thumb, it is recommended that a student spend 2 hours of study for each 1 hour in class. Therefore, for a 4.0 credit hour course (16 weeks of face to face: Lecture and lab), a minimum of 12 contact hours of study per week is required. Considerably more time will be required if the course is offered for 5 weeks.

The course is comprised of 16 Chapters, and multiple assignments organized to correspond to a standard semester. The course is NOT self-paced; approximately three chapters must be completed each week during the five week summer semester. Each Chapter includes the following learning activities: 1) assigned mandatory readings from the electronic E-Book. Each Smartbook chapter has an estimated completion time however, this time is often exceeded. 2. Depending on the chapter, completion of LearnSmart quizzes, quizzes, or discussions are required and 3) Daily assignments that state the daily/weekly activities and due dates.

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. Exams will be administered through connect, Respondus or Examity. You must set aside the time to take the exam during the designated timed exam.

Lecture: Minimum of four lecture exams will be given during the semester. Exams will consist of multiple-choice and short answer 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 35% 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 and animal specimen will be utilized to
test your knowledge of these systems.

The laboratory exams accounts for 35% of your grade.

Assignments 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.

Connect Virtual Labs aids students to be better prepared for lab, increases efficiency, and
provides the ability to retain more fundamental skills necessary for a successful laboratory
experience. Whether used as a fully online solution for lab replacement or preparation, these
simulations will help a student learn the practical and conceptual skills, then check for
understanding and provide feedback.

Discussion Requirement for online courses:
There will be no required face to face meetings on campus (online courses only). However, we
will participate in conversations about the readings, lectures, materials, and other aspects of the
course in a true seminar fashion. We will accomplish this by use of the discussion board.
Students are required to log-on to the course website often to participate in discussion. It is
strongly advised that you check the discussion area daily to keep abreast of discussions. When
a topic is posted, everyone is required to participate. The exact use of discussion will be
determined by the instructor.

This will count 10% of your grade.

Projects – web development 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 course. The
group is expected to written and oral 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).
**Grading Matrix**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Value (points or percentages)</th>
<th>Total</th>
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<tbody>
<tr>
<td>Lecture Exams</td>
<td>4 Lecture exams at 100 points ea.</td>
<td>35%</td>
</tr>
<tr>
<td>Laboratory Practical Exams</td>
<td>4 Practical exams at 100 pts each</td>
<td>35%</td>
</tr>
<tr>
<td>Assignment (Online, Discussion, Virtual Laboratory)</td>
<td>15 Assignments</td>
<td>10%</td>
</tr>
<tr>
<td>Case-studies/Project</td>
<td>4 Case-studies</td>
<td>10%</td>
</tr>
<tr>
<td>Comprehensive Final Exam</td>
<td>100 points</td>
<td>10%</td>
</tr>
</tbody>
</table>

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

**Late Assignment Policy**

A submission is labeled **Late** when it has been submitted past the due date. Only assignments with a status of Late will be affected by the Late Submission policy. The late policy will be applied to a submission when it is graded. Late assignments will reduce 1% per day late.

**Biology 3014 Lecture and Laboratory Schedule**

*(Assignments can be moved as needed)*

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topics</th>
<th>Online Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5/25</td>
<td>Holiday</td>
<td>Holiday</td>
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<tr>
<td></td>
<td></td>
<td>Registrar on Connect</td>
<td>Holiday</td>
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<tr>
<td></td>
<td>5/26</td>
<td>Orientation Video</td>
<td>Connect Orientation Assignment</td>
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<td></td>
<td></td>
<td>Pre-Test</td>
<td>APR Orientation Assignment</td>
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<td></td>
<td></td>
<td>Readings</td>
<td>Connect :1st Lab - Virtual Labs Tutorial</td>
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<tr>
<td></td>
<td></td>
<td>Atlas A (A.1, A.2, A.3, A.4)</td>
<td>Atlas A Assignment</td>
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<td></td>
<td></td>
<td></td>
<td>Practice Atlas: Body Orientation</td>
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<tr>
<td></td>
<td>5/27</td>
<td>Chemistry of Life (2)</td>
<td><strong>Lab Assignments</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Readings 2.1,2.2, 2.3, 2.4</td>
<td>Connect Virtual Labs: Chemical Composition of Cells - Test for Proteins</td>
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<td></td>
<td></td>
<td></td>
<td>Connect Virtual Labs: Chemical Composition of Cells - Test for Starch</td>
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<td></td>
<td></td>
<td></td>
<td>Connect Virtual Labs: Chemical Composition of Cells - Test for Sugars</td>
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<td></td>
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<td></td>
<td><strong>Lecture Assignments</strong></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Assignment Chapter 2</td>
</tr>
<tr>
<td>Date</td>
<td>Module</td>
<td>Readings</td>
<td>Lab Assignments</td>
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<tr>
<td>5/28</td>
<td>Cellular form and Function (3)</td>
<td>3.1,3.2,3.3,3.4</td>
<td>Connect Virtual Labs: Microscopy - Operation of Brightfield Microscope</td>
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<td></td>
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<td></td>
<td>Connect Virtual Labs: Osmosis - Tonicity in Red Blood Cells</td>
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<tr>
<td>5/29</td>
<td>Genetics and Cellular Function (4)</td>
<td>4.1,4.2,4.3</td>
<td>Connect Virtual Labs: DNA Biology and Technology - Isolation of DNA</td>
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<td></td>
<td>Assignment Chapter 4</td>
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<td></td>
<td></td>
<td></td>
<td>Discussion</td>
</tr>
<tr>
<td>2</td>
<td>Histology (5)</td>
<td>5.1,5.2,5.3,5.4,5.5,5.6</td>
<td>Make Histology Atlas</td>
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<td></td>
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<td></td>
<td>Learn primary tissue, Tissue, function and Location</td>
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<tr>
<td>6/2</td>
<td>EXAM 1 (Ch. 1-4)</td>
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<tr>
<td>6/3</td>
<td>Integumentary System (6)</td>
<td>6.1, 6.2, 6.3, 6.4</td>
<td>Practice Atlas</td>
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<td></td>
<td></td>
<td></td>
<td>Practice Atlas : Integumentary system Study</td>
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<td></td>
<td></td>
<td>Practice Atlas : Integumentary system Assignment</td>
</tr>
<tr>
<td>6/4</td>
<td>Bone Tissues (7)</td>
<td>7.1,7.2,7.3, 7.5</td>
<td>Case Study/Discussion: Osteoporosis</td>
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<tr>
<td>6/5</td>
<td></td>
<td>7.1,7.2,7.3, 7.5</td>
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<tr>
<td>3</td>
<td>Skeletal System (8)</td>
<td>8.1, 8.2, 8.3, 8.4, 8.5</td>
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<tr>
<td>6/8</td>
<td></td>
<td></td>
<td>Practice Atlas</td>
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<td>APR assignment</td>
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<tr>
<td>6/9</td>
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<td>8.1, 8.2, 8.3, 8.4, 8.5</td>
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<tr>
<td>6/10</td>
<td>Joints (9)</td>
<td>9.1,9.3</td>
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<tr>
<td>6/11</td>
<td>Lecture Exam 2 (Ch. 5-8)</td>
<td></td>
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</tr>
<tr>
<td>6/12</td>
<td>Muscle Tissue (10)</td>
<td>10.1,10.2,10.3,10.4,10.5</td>
<td>Connect Virtual Labs: Skeletal Muscle - Electrical Stimulation</td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Topic</td>
<td>Discussion</td>
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<tr>
<td>4</td>
<td>6/15</td>
<td><strong>Muscle Tissue (10)</strong> Readings 10.1,10.2,10.3,10.4,10.5</td>
<td>Lab Assignments Practice Atlas APR Assignment Connect Virtual Labs: Electromyography - Motor Unit Recruitment Lecture Assignments Assignment Chapter 11</td>
</tr>
<tr>
<td></td>
<td>6/16</td>
<td><strong>Muscle System (11)</strong> Readings 11.1,11.2,11.3, 11.4</td>
<td>Lab Assignments Practice Atlas APR Assignment Lecture Assignments Assignment Chapter 11</td>
</tr>
<tr>
<td></td>
<td>6/17</td>
<td><strong>Muscle System (11)</strong> Readings 11.1,11.2,11.3, 11.4</td>
<td>Case Study</td>
</tr>
<tr>
<td></td>
<td>6/19</td>
<td><strong>Exam 3 (Ch. 9-11)</strong></td>
<td>LAB PRACTICAL III</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>6/22</td>
<td><strong>Spinal Cord, Spinal Nerves, Somatic Reflexes (13)</strong> Readings 13.1,13.2</td>
</tr>
<tr>
<td></td>
<td>6/23</td>
<td><strong>Brain, Cranial Nerves (14)</strong> Readings 14.1,14.2,14.3,14.4,14.5</td>
<td>Lab Assignments Practice Atlas APR assignment Lecture Assignments Assignment Chapter 14 Case study</td>
</tr>
<tr>
<td></td>
<td>6/26</td>
<td><strong>Exam 4 (Ch. 12-16)</strong></td>
<td>Lab Practical IV</td>
</tr>
<tr>
<td>6</td>
<td>6/29</td>
<td><strong>Final Exam (Comprehensive)</strong></td>
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</tr>
</tbody>
</table>

**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.

**Minimum Technology Requirements for Biology courses**

To participate in PVAMU Biology online/hybrid courses, you need this technology:

**Required Hardware**
- A computer (desktop/laptop) or mobile device (tablet) that is less than 5 years old will work.
Check on your Computer Compatibility Check

- Speakers/headphones/earbuds for listening to audio or videos presented in courses.
- Webcam for interacting in course activities that require video feedback from students (such as VoiceThread), video test proctoring (such as Respondus Monitor, Examity), or other third-party tools. Webcam will be required for exams.
- You need to watch video and load Respondus lockdown browser on your computer or tablet

Required Software

The following software is required:

An Internet Browser, such as Mozilla Firefox and Google Chrome preferred. (See Internet Browser section for more information.)

- Mozilla Firefox (latest version) - Download
- Google Chrome (latest version) - Download

Adobe Acrobat Reader (latest version) - Download

ZOOM

Internet Connection

A stable High speed Internet connection

Class assignments will be available Tuesday, May 26, 2020.

Orientation videos
Canvas orientation
Navigating Connect and Completing Assignments
Getting Started with McGraw-Hill's Connect & SmartBook

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.