



SYLLABUS

BIOL 3402 Anatomy and Physiology II Spring 2024

Instructor: Nadjia Hamadouche Delhoum M.D.
Section # and CRN: P05 (25262) - P65 (25263)
Office Location: E.E. Obanion Science Building, Suite 430Y
Office Phone: 936-261-3175
Email Address: nahamadouche@pvamu.edu
Office Hours: MW: 12:00 pm – 1:00 pm. TH 1:00 - 2:00 pm. By appointment
Mode of Instruction: Face to Face

Course Location: P05: Room 311, P65: Room 313
Class Days & Times: P05: TTH, 2:00 - 2:50 pm; P65: TTH, 3:00 pm - 4:50 pm

Catalog Description: BIOL 3402 Anatomy and Physiology II: 4 semester hours. For biology and physical education majors. Human structure, physiology, organ systems, and related principles.
 2.000 Lecture hours
 4.000 Lab hours

Prerequisites: BIOL 1015 & 1025

Co-requisites:

Required Texts: **Saladin 10e: Connect w/ Proctorio ISBN: 9781265864088 (Bookstore) Bundle (Bookstore)**
 You may use the same eBook purchased for BIOL 2401 part I via McGraw Hill Connect. New students must purchase the McGraw Hill Connect.

Recommended Texts: 1) Openstax
 2) Human Physiology (From Cells to Systems 5th edition, Sherwood)
 3) Textbook of Medical Physiology, 9th edition, A.C. Guyton, J.E. Hall
 4) Human Physiology 3rd edition, D. Silverthorn.

Student Learning Outcomes:

	Upon successful completion of this course, students will be able to:	Program Learning Outcome # Alignment	Core Curriculum Outcome Alignment
1	Identify the important anatomical structures in each of the state organ systems.	#1	Critical Thinking, Communication
2	Demonstrate a critical understanding of all-important physiological processes of the stated systems as well as fluid and electrolyte balance,	#1	

	nutrition, metabolism, pregnancy, human embryology, fetal development and human genetics.		
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 cardiovascular, lymphatic, respiratory, urinary, digestive, and reproductive.	#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

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 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.

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/Simulation Assignments: Students are engaged in scientific inquiry by performing in group data collection, analysis and write-ups. The students will perform exercises targeting respiration, cardiovascular and muscular function. **This will count 10% of your grade.**

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 5% of your grade**

Final Project/Research Paper:

Global Awareness Ability to describe important issues that impact local and international communities and begin to connect his or her local actions to global contexts. The project will be based on understanding healthcare system globally. **This will count 5% of your grade**

Attendance and Participation:

Attendance is critical. Your success in this course will be the direct result of your attendance for each class and your participation throughout the course. Class attendance is measured based on the following criteria: arriving to class on time; paying attention during lecture; attentively watching and listening to instructional videos; respectfully listening when others are speaking; your ability to be fully engaged in your learning without texting, checking your phone or email, or participating in other digital distractions; your ability to stay awake, etc.

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

Respiration (Lesson 12) assignment: Students observe physiologic modifications of the respiratory cycle associated with voluntarily increasing and decreasing blood carbon dioxide content by holding breath and hyperventilating. Students will qualitatively determine changes in respiratory minute volume by recording and analyzing EMGs from respiratory muscles of the thorax. 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 a written portion of the case study and providing a part for the oral presentation. The topics will require students to research information and compare data. After which, they will collaboratively assemble an oral presentation using Prezi to be assessed by their peers and professor. This assignment will be referenced against the Association of American College and Universities Written and Oral communication rubric, Teamwork rubric and Peer Evaluation Rubric (Herreid, C.F., 2007).

Example of Scientific Topic is a comparison of cardiovascular system disorders the students will be responsible for knowing and communicating the history, effected population, discovery and treatment of the disorder.

Grading Matrix

Instrument	Value (points or percentages)	Total
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Lecture Exams	4-5 Lecture exams at 100 points ea.	35%
Laboratory Practical Exams	4-5 Practical exams at 100 pts each	35%
Assignment (Online, Laboratory Assignments, Biopacs, Quizzes and APRs)	Check Connect/Canvas assignments for the due dates.	10%
CASE-STUDY/Quizzes	Group	5%
Final Project: Research Paper	Individual	5%
Comprehensive Final Exam	100 points	10%
Total		100%

Grade Determination:

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

Exams and Make-Up Policy:

- Electronics are prohibited during exams.
- Exams are not open book or open notes.
- All exams are in class F2F, Lecture exams are paper based, students are allowed only one makeup exam during the entire semester (you are required to submit a valid reason with an official document/s to be verified should you require a make-up exam), make up exams must be within the following week of the regular exam, student or a representative if the student is unable should notify the faculty as soon as possible in case of an emergency occurring less than 24h prior to the exam date.
- No lab exam makeup is allowed, if you miss an exam a grade of zero will be given. Lab exams consist on short answers based on labelling models or filling the blanks on activities completed in class or online via connect, exams will be on paper or via Connect.
- On exam day, you must bring a number 2 pencil, an eraser and the scantron (check the book store) for lecture exams. If lab exams are on paper; you will be provided the answer sheet by your professor.
- There will be no make-up, early/late taking for the final exam.
- No extension or redo are permitted for the online assignments; assignments are open for a week (8 days) to be completed.

If a student has stopped attending the course (i.e. “stopped out”) at any point after the first day of class but did not officially withdraw from the course and has missed assignments and exams, including the final exam, and performed below the grade level of a D, a grade of FN (failed-nonattendance) will be assigned for the final course grade to ensure compliance with the federal Title IV financial aid regulations. In contrast, if the student has completed all assignments and exams, including the final exam, but performed below the grade level of a D, a grade of F will be assigned for the final course

BIOL 1064 Tentative Schedule

The following schedule is a tentative schedule, the faculty reserves the right to amend/ revise the syllabus and the course schedule to meet your needs. The students will be notified in a timely manners of any changes.

<u>Week</u>	<u>Laboratory</u>	<u>Lecture</u>	<u>Online Assignments</u>
	<u>Some weekly in class activity/Exercises are for Grade.</u>	<u>Reading the chapters before class is highly recommended.</u>	<u>Connect Assignments are Due every Sunday 11:59pm CT</u>
Week 1	Pretest via Canvas	Syllabus Overview	
	Lab Safety, Syllabus/Register for Connect	Chapter 18 Circulatory System: Blood	Chapter 18 Assignments
Week 2	Simulation: Blood Typing	Chapter 18 Cont'd Circulatory System: Blood	
	Simulation: Differential White Blood Cell Count Dissection of Heart	Chapter 19 Circulatory System: Heart	Chapter 19 Assignments
Week 3	Simulation: Blood Hematocrit Dissection table	Chapter 19 Cont'd Circulatory System: Heart	
	Simulation: Cardiovascular Physiology Electrocardiography BIOPAC: lesson 5	Chapter 20 Circulatory System: Vessels and Circulation	Chapter 20 assignments
Week 4	Simulation: Cardiovascular Physiology Blood Pressure BIOPAC Lesson 16 Dissection table	Chapter 20 Cont'd Circulatory System: Vessels and Circulation	
	Simulation: Cardiovascular Physiology Pulse Rate Dissection table	Chapter 21 Lymphatic System	Chapter 21 Assignments
Week 5	Simulation: Cardiovascular Physiology Pulse Rate	Lecture Exam I (18,19,20)	
	Lab Exam I (weeks 1-4)	Chapter 21 Cont'd	
Week 6	Simulation: Respiratory System: Mechanism of Breathing BIOPAC: Lesson 12	Chapter 22 Respiratory System	
	Dissection table /Models Labelling	Chapter 22 Cont'd	Chapter 22 Assignments

			Urinary systems	
Week 7	Simulation: Respiratory System: Pulmonary Function Tests		Chapter 23 The Urinary System	
	Lab Exam II (weeks 5-6)		Chapter 23 Cont'd The Urinary System	Chapter 23 Assignments
Week 8	Simulation: Glomerular Filtration Reabsorption and Filtration		Chapter 24 Fluid, Electrolyte, and Acid-Base Balance	
	Urinalysis Urinary System Models		Midterm Lecture Exam II (21/22/23)	Chapter 24 Assignments
Week 9	Spring Break 😊			
Week 10	Simulation: Antacids as Buffers Function of Buffers		Chapter 25 Digestive System	
	Simulation: Enzymes and Digestion Digestive System Models Dissection.		Chapter 26 Nutrition and Metabolism	Chapter 25 Assignments
Week 11	Simulation: Emulsification of Lipids Digestion of Starch		Lecture Exam III (24/25/26)	
	Lab Exam III (weeks 7-10)		Chapter 27 Male Reproduction	Chapter 26 Assignments
Honors Convocation				
Week 12	Male reproduction		Chapter 27 Cont'd	
	Male reproduction		Chapter 28 Female Reproduction	Chapter 27 Assignments
Week 13	Female Reproduction		Chapter 28 Cont'd	
	Female Reproduction		Chapter 29 Human development and Aging	Chapter 28 Assignments
Week 14	Embryo Development		Chapter 29 Cont'd	
	<i>Case Studies</i>		<i>Case Studies</i>	Chapter 29 Assignments
Week 15	Lab Exam IV (weeks 11-14)		Exam IV (27,28,29)	
	<i>Case Studies</i>		<i>Case Studies</i>	
Week 16 <u>Final Exams</u>	Final Exams		Final exam is comprehensive, covers chapter 18 to 29	

- **Items in italics will be used for assess for compliance in foundational core areas**

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 accomplished 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.

COVID-19 Campus Safety Measures

To promote public safety and protect students, faculty, and staff during the COVID-19 pandemic, Prairie View A&M University has adopted policies and practices for the Fall 2020 academic term to limit virus transmission. Students must observe the following practices while participating in face-to-face courses and course-related activities (office hours, help sessions, transitioning to and between classes, study spaces, academic services, etc.):

- **Self-monitoring** - Students should follow CDC recommendations for self-monitoring. Students who have a fever or exhibit symptoms of COVID-19 should participate in class remotely and should not participate in face-to-face instruction.
- **Face Coverings** - Face coverings (cloth face covering, surgical mask, etc.) must be properly worn in all non-private spaces including classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource and support offices, and outdoor spaces where 6 feet of physical distancing is difficult to reliably maintain.
- **Physical Distancing** - Physical distancing must be maintained between students, instructors, and others in course and course-related activities.
- **Classroom Ingress/Egress** - Students must follow marked pathways for entering and exiting classrooms and other teaching spaces. Students should leave classrooms promptly after course activities have concluded, should not congregate in hallways and should maintain 6-foot physical distancing when waiting to enter classrooms and other instructional spaces.
- **Face-to-face Class** - To attend a face-to-face class, students must wear a face covering (or a face shield if they have an exemption letter). If a student refuses to wear a face covering, the instructor should ask the student to leave and join the class remotely. If the student does not leave the class, the faculty member should report that student to the Office for Student Conduct for adjudication. Additionally, the faculty member may choose to teach that day's class remotely for all students.
- **COVID-19 Guidelines for Student Conduct Adjudication** - The mandatory COVID-19 Training/Certification taken by all students serves as the 1st Warning for violation of COVID-19 Guidelines.
 - 1st incident: upon review of Incident Report and finding of responsibility — Conduct Probation
 - 2nd incident: upon review of Incident Report and finding of responsibility — Suspension
 - Consult the Code of Student Conduct in the Student Planner or [Student Conduct website](#) for additional information on Conduct Probation and Suspension.

Personal Illness and Quarantine - Students required to quarantine must participate in courses and course-related activities remotely and must not attend face-to-face course activities. Students should notify their instructors of the quarantine requirement. Students under quarantine are expected to participate in courses and complete graded work unless they have symptoms that are too severe to participate in course activities. Students experiencing personal injury or illness that is too severe for the student to attend class qualify for an excused absence. To

receive an excused absence, students must provide appropriate documentation to the Office for Student Conduct, studentconduct@pvamu.edu