



Angelo State University - Fall 2021

BIO 2124 - Human Physiology Lab

Course Syllabus, General Information and Policies

STRONGLY ENCOURAGED USE OF MASKS/FACIAL COVERINGS BY STUDENTS

As a member of the Texas Tech University System, Angelo State University has adopted the voluntary but *strongly encouraged* Facial Covering Policy to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. This is also true for both vaccinated and unvaccinated individuals.

**** Therefore, in compliance with the university policy students in this class, for the safety of everyone are strongly encouraged to wear a mask/facial covering before, during, and after class.**

Faculty members may also ask you to display your daily screening badge / required ASU Daily Wellness check as a prerequisite to enter or remain in the classroom.

**** You are also asked to maintain safe distancing practices to the best of your ability.**

Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct. (See also Page 8 of this syllabus)

With that important and vital information in mind and always being observed...

Welcome to the Human Physiology Lab!

We're glad you've decided to participate in this semester's lab activities. This handout has been prepared for you to know and understand the policies and rules your lab instructor will maintain throughout the semester. Keep it in a safe place and refer to it whenever you have an "administrative type" question during the course.

The physiology lab exercises that you will participate in this semester have been designed to offer you the opportunity to gain practical experience with the topics being discussed in the lecture portion of the course, in a "hands on" way. Generally you can expect to receive your first exposure to most of the course content by way of your experiences preparing for your lab work each week.

PLEASE NOTE: BIOL 2124, Human Physiology Lab is a co-requisite to BIOL 2324 Human Physiology Lecture, which you are required to also be enrolled in this semester. To earn course credit, enrollment in both classes this semester is required.

You will perform learning activities and experiments that apply to what you will also be learning to apply and use through the lecture component of the course BIOL 2324. Labs in this course, are designed to give each student the opportunity to participate with their lab partners in the class in completing specific activities which give them the opportunity to observe and "experience" the physiological concepts being addressed every week. So, your opportunity to learn and understand human physiology will be enhanced by your attention and active participation in the lab experience. You will see in this course, how the knowledge of human anatomy you have built, is applied to an understanding of human body functions beginning at the cellular level and expanding to how the various organ systems interact with one another to maintain homeostasis... otherwise known as Human Physiology!

Your Lab Instructor Information:

Instructor: _____ **Lab Meeting:** Day _____ Time _____ Section _____

Instructor Contact Information: ASU Email _____ Office Telephone: _____
Office Location: _____ Office Hours: _____

Required Items For This Course:

1. Weekly lab protocols and related handouts, notes, etc. are available and provided through ASU Blackboard (<http://blackboard.angelo.edu>) You will be required to access these materials, download, print, bring and use them at each lab session. It is each student's responsibility to do this before every lab session begins as instructed by your lab instructor. Refer to the Lab Schedule for additional details.

ASU Blackboard also provides access to communication with your instructors in this course and access to the Bb Gradecenter to use in monitoring your grade status throughout the course.

2. Enrolled current subscription and full-semester access to the **TopHat Coursepage** for the Bio 2124 Lab Section for which you are registered. Your Lab Instructor will provide additional specific information in your first lab section meeting of the semester. Each student will be expected to bring the device they will be using to access their section's TopHat coursepage for use during every lab session.

3. Modified Mastering A&P with eText - Standalone Access Card ISBN: 9780134714868 ← USE THIS ISBN # to identify the correct item to purchase and use in this course. *This item is identical to the one required for the lecture course also.*

This is a required item for this course and will also be required by your lecture instructor. You may purchase online access separately as described in your lecture course syllabus (and by your lecture instructor). *Your lecture instructor will manage the MAP Coursepage that is set-up for the BIOL 2324 Lecture course section for which you are enrolled.* We will use this online resource regularly to earn points for both lecture and lab.

You must register for this through your lecture section by following instructions provided by your lecture instructor. Please note that all MAP assignments will be available and managed through your lecture section.

This required item provides access to the following required course resources:

Online Access to the digital electronic version of the textbook required for this course: **Human Physiology: An Integrated Approach, 8th Ed. Silverthorn (2019), Pearson Publishers.** Many students prefer to use a physical, printed copy of the text. These are available through various outlets including the internet. If a used book of a previous edition is to be used, please note that page assignments and other references used in class are based on the most current edition (9th -2019). Check with your instructor FMI.

Mastering A&P (MAP) also provides online access to each of the following resources:

PhysioEx: Laboratory Simulations in Physiology Pearson Publishers, available online w/ password protected access

The lab schedule included in this syllabus indicates which lab activities will require this. Previous versions may also be used, but page #'s do not always coincide. You may access this through the "My Study Area" link on the "MAP" website after you have registered through the website. A printed version of the Lab Activities, Protocols and Data Tables is also available for purchase if you would like to acquire it as ISBN# 978-0-321-90541-3, as an optional separate item purchase.

Interactive Physiology (IP): Optional for lab, but highly recommended for your lecture section. This resource is accessed through the "Study Area" link on "MAP" after you have registered through the website above and have access Modified Mastering AandP.

Pre & Post-Textbook Reading Comprehension and Understanding Self-Assessment Activities These activities will be assigned and managed at your lecture instructor's discretion to offer a means to offer sample exam type questions, interactive coaching and learning activities, as well as opportunities to provide feedback to help you decide which topics you may need to review or study more or seek out additional assistance as you prepare for lab and lecture examinations. Don't hesitate to consult with your instructor(s) for additional assistance.

4. An inexpensive calculator that does basic math functions. *Cell phone calculator use, will not be permitted during lab exams.*

5. University Mandated Laboratory Safety Training is Required to participate in this course. The training course you must complete appears in your list of ASU Blackboard Courses. You are required to complete this course online AND to SUCCESSFULLY pass the quiz which follows the course with a score of 90% or better. PLEASE READ ON... and see your lab instructor for more information or any questions you may have.

As a student in this course you will find that you are enrolled in either or both of the following courses on the ASU Blackboard website. These will appear in your current list of ASU Blackboard coursepages, to which you have access. The two courses are known as **1)Lab Chemical Safety and Hygiene and 2)BioSafety Training.**

If you have already taken an ASU science course (such as Bio2123/2323 Human Anatomy) you should have already completed course #1.

As long as you complete the training with a score of 90% or more once, you are not required to take the course again. See your list of ASU Blackboard Courses to verify that you have successfully completed this course.

Course #2 above is required to be completed in order to be able to attend and participate in Bio2124 Lab sessions.

Unless you have already completed it with a score of 90% or better, *you MUST DO SO* during the first week of the semester to be given permission to attend subsequent lab sessions for the remainder of the semester. ASU strictly adheres to this policy and requires lab instructors not to allow students to participate in labs until this requirement has been met. Please check your status for completion using the ASU Blackboard Coursepage and ask your instructor any questions you may have about this program or this ASU Safety Policy.

Our goal in this course is to encourage you and to ultimately produce your success!

A successful student in Human Physiology should be able to achieve the following course and state core related learning outcomes:

-locate, identify, and functionally describe the structures of the human body at all levels of organization (i.e. recall content) = CT1, EQS1, EQS2 – Assessment = In class activities, lecture exams, embedded test questions, lab practical exams, and lab activities/reports

-develop understanding of the functional relationships of anatomical structures to one another (at all levels of organization) in health and communicate the acquired knowledge in written form. (i.e. comprehend the material). CS1 – Assessment = In class activities, lecture exams, embedded test questions, lab practical exams, and lab activities/reports

-perform laboratory investigations in which numerical physical and chemical physiological data pertaining to tissue function are collected, classified, and analyzed in order to reach an informed conclusive interpretation about relevant clinical scenarios and “real-world” applications. EQS1 – Assessment = In class activities, lecture exams, embedded test questions, lab practical exams, and lab activities/reports work effectively with others to support and accomplish a shared goal = CS1, TW2 – Assessment = In class activities, lecture exams, embedded test questions, lab practical exams, and lab activities/reports

-connect what she/he is learning to her/his own field (i.e. to make physiology relevant to your own academic endeavors).

Assessment = In class activities, lecture exams, embedded test questions, lab practical exams, and lab activities/reports

For State, and Accreditation purposes this course will assess your ability to:

- CT1: Gather, analyze, evaluate, and synthesize information relevant to a question or issue
- CS1: Develop, interpret, and express ideas through effective written communication.
- EQS1: Manipulate and analyze numerical data and arrive at an informed conclusion.
- EQS2: Manipulate and analyze observable facts and arrive at an informed conclusion.
- TW2: Work effectively with others to support and accomplish a shared goal.

Laboratory Grade Determination: Scores for each lab exam will be reported to your lecture instructor for use in calculating your final course average and assignment of a final composite letter grade in the course. Your final letter grade in

the lab portion of the course (Biol2124) will be the same as the course letter grade issued for (Biol2324) and reported to the ASU Registrar's Office as such.

Lab Exam 1 150 possible points = 15% of Final Grade

Lab Exam 2 150 possible points = 15% of Final Grade

Lab Exam 3 150 possible points = 15% of Final Grade

Total 450 possible points = 45% of Final Composite Course Grade

(reported to your Biol2324 Lecture Instructor as noted above)

Consult your lecture syllabus to review how these will be used to determine your Final Overall Course Grade.

You will receive a separate grade for this course. It will be a composite final letter grade based on BOTH your performance and success in lecture and in lab of attaining the maximum number of possible points. Therefore, it will be the same grade you receive in Bio2324 (Human Physiology Lecture). See your lecture syllabus for a description of points allocation in the course and the scale upon which the number of points earned is articulated with the final letter grade issued.

Laboratory Agenda:

The larger objectives and learning outcomes for labs are to be able to

1. Analyze and interpret the data collected in order to make reasonable conclusions
2. Associate actual observed phenomena from lab to physiological processes.
3. Apply the concepts connected to the experiments to practical "real life" scenarios related to human homeostasis, health, and disease.

BEFORE you attend each week's lab session you will be expected to read and review specific pages in the textbook, lab exercise protocols and activity files provided on the ASU Blackboard Coursepage (Bb) under the "Lab Protocols". Additionally these "prelaboratory preparation activities" may include completing assignments with PhysioEx 9.1.

READ ME → Prior to attending each lab, students will be expected to:

1. Visit the ASU Blackboard System via the following links: directly <http://blackboard.angelo.edu> and locate and open, the course page provided for your lab section and instructor.
2. Download and print all handouts associated with the upcoming week's lab, including Lab Protocol pages that you will use as your guide and instructions for each week's lab work. It's a good idea to read through these BEFORE you come to lab in order to be better prepared for the topics that will be addressed in the activities planned for your lab session each week. Reference reading for pages in the Silverthorn textbook, and PhysioEx assignments are often provided in these (and in your lab schedule) to assist in making necessary preparations for lab sessions.

Additional Optional Study Materials are also provided via the Lab Blackboard Coursepage for your use also. These are provided as items that you may use or not as you see fit – but have been requested by students in the past to offer additional study material, practice for lab exams and lecture quizzes etc.. These will never be assigned for grades nor collected for grading in any way. They are provided for your use as you wish. If you use them and have any questions after doing so please don't hesitate to ask your instructor for additional assistance with any of them. These are all provided strictly to help you.

During the lab, lab group members will perform experiments, collect data, make observations and record these. Discussion and collaboration within the group is encouraged so that the work accomplished is a direct reflection of the efforts of all members of the group. A major part of lab work extends beyond simply collecting experimental data. Lab exams are intended to offer a real ability to show what you have learned by using and applying the analytical methods and interpretive skills being learned in your lab work.

Each member of a lab group will be expected to do his/her fair share and contribute willingly to the completion of each day's activities. **IT IS RECOMMENDED THAT EACH STUDENT SHOULD RETAIN A COMPLETED COPY OF EACH ASSIGNMENT SINCE THESE WILL BE VALUABLE IN HELPING STUDENTS TO PREPARE FOR LAB EXAMS.** (See this semester's lab schedule for exam dates)

Lab Exams:

Exam Format: ALL QUESTIONS ARE OBJECTIVE FORMAT □

Each exam will employ a variety of objective testing methods. Expect to see multiple choice, matching, true/false, and “answer pool based” fill-in-the-blank questions.

There are also multiple “practice questions” you may use embedded in each weekly lab protocol, and in PhysioEx exercise worksheets. Additionally, you will also be expected to interpret and analyze data similar to what you collected in lab. You will be expected to make mathematical calculations using the formulas you used in the lab exercises in the same manner as they were used during lab work. Additionally, you will be expected to analyze and interpret the data in a manner similar to that used in each lab session or in the PhysioEx lab simulations. Exam dates for your particular lab section are noted by week on the lab schedule included in this syllabus.

Grade Review / Regrading Procedures: An answer key of each exam will be available per your lab instructor for your review when your answer sheet is returned at your next lab session. Students are encouraged to confer with your instructor if there are any questions regarding exams once they have compared their exam to the key. Questions regarding scoring should be reported to your instructor immediately for consideration.

You must follow the procedures for regrading that follow:

- 1. If the error is strictly an addition and/or division error: • attach a note to your exam which reads “math only” and highlight the error • turn in your exam to your instructor personally
- 2. If you believe you have found a grading interpretation error; remember that the exam answer sheets must be unaltered since the time you submitted them at the exam.

DO NOT MAKE ANY CHANGES ON THE ANSWER SHEET unless instructed to by your instructor.

If there have been questionable erasures or markings which call into question the validity of the answers a regrade cannot be completed. **NO EXCEPTIONS.**

- 3. be sure you have studied the key before you request that any question(s) be regraded.
 - you must highlight the error and clearly state your reason(s) for thinking the question has been graded incorrectly in writing in an attached note.
 - “Question X is graded wrong or I deserve more points on question Y” are not reasons. A clearly delineated and thoughtful reason with verification from a published reference is expected, i.e. you must be able to show with a reference why your answer should be counted correct.
- 4. turn in your exam to YOUR lab instructor personally

Instructors will be happy to review and correct any errors you may suspect BUT ONLY if you follow the above instructions. Understand that this will be very fair, but, to be fair, a regrade of the entire exam will be done AND if the resulting grade is lower than the previous, the second grade will replace the first.

The deadline for requesting any regrading is 5pm one week following the posting or available return of your exam. NO EXCEPTIONS.

Attendance Policy: Students are expected to attend their normally scheduled lab and to actively participate every week. Each lab instructor will monitor class attendance as required by the University. Each student will be required to attend lab prepared to begin on time. Although there is no formal category of grade dedicated to attendance, each lab instructor reserves the right to report observations related to attendance, effort and attitude, level of participation, and performance in lab, to each student’s lecture instructor along with the total of points earned on lab exam grades.

Most instructors will employ a sign-out sheet at each lab session or use TopHat online login software for attendance recordkeeping. Each instructor reserves the right to choose their own method, and may require the student to have access to the TopHat software service (See page 1 of this syllabus)

Students not present at the end of lab will be counted absent. Therefore, plan to be in the lab for the entire session. If you anticipate a need to leave lab early you should consider attending another lab session during the week instead, to reduce your risk of losing attendance credit and, of course, the instruction offered at that week’s lab. Any make-up work permitted must be completed during the same week the lab is scheduled. You must contact your lab instructor to discuss any lab-absence and

make any arrangements necessary or required to make-up a missed lab. Read on for important information...

Exam Make-Up Policy:

Students will be permitted to take a lab exam in another section only if they have contacted their instructor and been given permission to do so. Make up exam policy beyond this point is left to the discretion of each lab instructor.(See the lecture syllabus for additional details.) A grade of 0 will be recorded for any exam that is not taken or made-up. No student will be permitted to take more than ONE make-up exam at another section/ time per semester unless they have discussed this possibility with their instructor well in advance.

Consider changing your schedule immediately if your personal or work related commitments away from campus are likely to create a problem in this regard.

You may not simply attend another lab without the consent of your instructor and the instructor of the session you plan to attend. If you miss a lab FOR ANY REASON, you must contact your lab instructor and arrangements to attend another lab may be made. When you contact your lab instructor they will ask you which lab you intend to attend later that week, so, you must consider your schedule and choose a time beforehand. A schedule of all lab sessions and instructors is posted on ASU Blackboard Lab Coursepage. **This permission must be communicated to the instructor of the lab where the absence will be made-up BEFORE you arrive, by YOUR instructor to gain permission to attend another lab. IT IS YOUR RESPONSIBILITY TO COMMUNICATE WITH YOUR LAB INSTRUCTOR REGARDING LAB MAKE UP. Failure to do this is likely to result in an inability to attend another lab during the week it is taught.**

Religious Holy Day Observance Policy: A student who intends to observe a religious holy day, in addition to any traditionally observed by the university during the semester should make that intention known in writing to the instructor during the first week of the semester and at least one week prior to the absence. If this submission is completed, a student who is absent from classes for the observance of a religious holy day shall be allowed to take make up missed exams or assignments scheduled for that day in accordance with syllabus policy. (See Above)

Academic Honesty / Plagiarism / Cheating:

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the ASU Student Code of Conduct, which is contained in both print and web versions of the Student Handbook.

Students in this class are expected to submit work in accord with the guidelines of academic honesty provided by their instructor for each particular activity. Any student found to be submitting a completed assignment that is shown not to be their own as well as the student that allowed their work to be copied will not receive credit for this work. (This policy applies mainly to examination situations.) Furthermore, any student observed by the instructor to be willfully copying from another student during an exam or otherwise engaged in using devices not allowed by the instructor during an examination will not receive credit for the examination. The student who knowingly allows another student to do so will be subject to disciplinary action as well. In each case of suspected academic dishonesty the student(s) involved will also be subject to further disciplinary action by the university and dismissal from the course.

Handicapping Conditions / Learning Disabilities: Persons with disabilities which may warrant academic accommodations must contact the ASU Student Life Office, Room 112 University Center, in order to request and to implement academic accommodations. This must be done no later than Friday of the second week of the semester. Those who are qualified to receive accommodations are expected to discuss the circumstances with their instructor(s) during office hours. Contact your instructor(s) for additional information and specific arrangements.

Cell phones, pagers, music players, laptops, tablets, etc.: Turn them off while a lab exam or lecture is in progress, or better still, don't bring them with you to class on the day of an exam. If any of these devices "go -off" during class and especially during or exam you will be asked to leave and given a grade of zero for the exam. **NO EXCEPTIONS.**

During usual lab sessions, i.e. not during exam sessions, if your device can be set to notify you inaudibly this is allowed, but any conversations or responses on your part must be carried out outside the classroom during any part of the class period. **No Exceptions.**

If you would like to electronically record lectures check with your particular instructor(s). The right to allow or refuse this is reserved for each lab instructor individually and at their discretion. You must ask for permission. Most are willing as long as

the method used does not distract you, the other students in class, or the instructor. If any of these devices “go –off” during class and especially during an exam you will be asked to leave and given a grade of zero for the exam. NO EXCEPTIONS.

Withdrawal From the Course:

Contrary to what many students believe, you are not automatically withdrawn from a course if you cease to attend lectures or labs. If you wish to discontinue participation in Human Physiology Lab, you must formally withdraw by seeing your lecture instructor. Dropping the lecture automatically drops the lab, no separate drop slip is necessary. Failure to follow this procedure can result in a grade of F appearing on your academic transcript. The last day to withdraw from classes for the **Fall 2021 semester is Monday, November 22nd, No Later Than 5PM.** Anyone remaining in the course after this date will receive the grade

commensurate to the points they have earned. *Withdrawal from lab requires withdrawal from the lecture portion of the course and vice versa.*

You should monitor your progress in the course by using the Bb Gradecenter regularly and discuss your concerns with your instructors well in advance of this date. ASU Rampart offers electronic access online to the process required to withdraw from a course. Your instructors are interested in your progress and available during scheduled office hours and often via email to discuss any concerns you may have.

Title IX Code Policies and Enforcement at Angelo State University:

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex. You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D.

You may submit reports in the following manner: Online: www.angelo.edu/incident-form Face to Face: Mayer Administration Building, Room 210 Phone: 325-942-2022 E-Mail: michelle.boone@angelo.edu Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-4866345), or the University Health Clinic (325-942- 2171). For more information about resources related to sexual misconduct, Title IX, or Angelo State’s policy please visit: www.angelo.edu/title-ix.

COVID 19 Pandemic Related Policies:

During any and all times in Science Building III (and Room 107; Human Physiology Lab)

- **Students are encouraged to strongly follow ALL ASU COVID 19 safety procedures including performing a daily wellness check BEFORE attending class and presenting it at each class meeting.**
- **Students are strongly encouraged to wear a mask at all times and maintain adequate (6ft) social distancing.**
- **Students must also wash hands before entering the lab and before leaving the lab.**

Texas Tech University System Facial Covering Policy

The TTU System and its component institutions ("University") require all members of the University Community (students, faculty, staff, visitors, vendors and contractors) to wear protective face coverings

1. on University campuses or in University facilities as provided below: I. Requirements A. In common areas
2. A. on campus including, but not limited to, classrooms and other spaces used for teaching, research, and creative activity, Student Union, libraries, hallways, elevators, stairwells, restrooms, break rooms, foyers, event rooms and lobbies;
- B. In patient care units, ambulatory clinic spaces, or procedural areas; or
- C. Other areas where physical distancing of at least 6 feet is not maintained. Even when physical distancing of at least 6 feet can be maintained, face coverings are strongly recommended. II.

Exceptions

- A. When eating or drinking, which should still be conducted maintaining physical distance;
- B. In accordance with applicable law (e.g., an accommodation, including for medical reasons, under the Americans with Disabilities Act (ADA), or pursuant to a bona fide religious belief);
- C. For children under the age of 2 years old; or
- D. By an instructor/presenter in a classroom or event room when a physical distance of at least 6 feet can be maintained from the class members/audience.

With prior University approval, units and departments may set other reasonable guidelines and policies that are particularly tailored to their specific workplace, healthcare, or learning environment (e.g., residence halls, recreation centers, athletics facilities, performance venues, research facilities, medical clinics). Although failure to comply with this facial covering policy may lead to disciplinary action, efforts will first be made to educate members of the University Community of the need for facial coverings to control the spread of COVID-19. Warning will be given before disciplinary action is taken.

Modifications to the Syllabus:

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the current and changing conditions associated with the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice. If the course is moved on-line, exams and quizzes will still be held and administered at their regularly scheduled time during lab.

Transition to an On-Line Environment: If the university closes due to COVID-19, we will transition to an on-line environment using Top Hat, Blackboard and Mastering A&P. At that time, look for an announcement to come through your ASU email and ASU Blackboard for this laboratory course.

Bio 2324 - Human Physiology Lab Schedule -- Fall 2021

Week of Lab / Lab# Lab Activities & Assignments

August 23rd

- 1 Introduction, Orientation, Syllabus and Class Resources
Fundamental Physiological Principles
Mathematical Conversions and Applications

August 30th

- 2 Cell Physiology and Movement Through Cell Membranes
PhysioEx Exercise # 1
IP Module: Fluid and Electrolytes - Introduction to Body Fluids

September 6th

**Labor Day Holiday for Monday Labs -
Students in Monday's Lab will attend Tu 11-2 or Tu 2-5 or Wednesday 2-5 Lab Session.**

- 3 Glucose Tolerance Testing and Metabolic Applications
PhysioEx Exercise # 4
IP Modules: Endocrine System Modules – Mechanism of Hormone Action, The Actions of Hormones on Target Cells: 1) Direct Gene Activation 2) Second Messenger Activation, The Hypothalamic-Pituitary Axis, Response to Stress

September 13th

- 4 Mechanical vs. Chemical Digestion
Selected Examples of Enzymatic Digestion
PhysioEx Exercise # 8
IP Modules: Digestive System Modules - Control of the Digestive System, Digestive Secretion, Enzymatic Digestion and Absorption

September 20th **LAB EXAM 1 - Covers Labs 1-4**

September 27th

- 5 Basic Neuroanatomy Review and Fundamentals of Neurophysiology
Human Reflex Arc Considerations, Functions, and Reaction Time Assessments
PhysioEx Exercise # 3
Sensory Physiology I: Cutaneous, Auditory
IP Modules: Nervous System I - Resting Membrane Potential, Generation of an Action Potential, Propagation and Velocity of the Action Potential Nervous System II – Events at the Synapse

October 4th

- 6 Sensory Physiology II: Vision Considerations and Vestibular Labyrinthine Reflexes
Review and Refer to PhysiologyPlace.com A&P Flix, PhysioEx & IP Modules from Week 6

October 11th

- 7 Muscle Contractility Exercises: Simulations and Analysis
PhysioEx Exercise #2
IP Modules: Events at the Neuromuscular Junction, The Cross-Bridge Cycle, Muscle Metabolism

October 18th

LAB EXAM 2 - Covers Labs 5-7

October 25th

- 8 Cardiovascular Physiology I:
PhysioEx Exercise # 6
IP Modules: Pathway of Blood through the Heart, IP2: Electrical Activity of the Heart, IP2: Cardiac Cycle, IP2: Cardiac Output, Action Potentials in Autorhythmic Cells, Intrinsic Conduction System of the Heart, Cardiac Cycle, Regulation of Cardiac Output

November 1st

- 9 Cardiovascular Physiology II:
Human Cardiovascular Dynamics and Electrocardiography
PhysioEx Exercise # 5
IP Modules: IP2: Cardiac Output, IP2: Factors Affecting Blood Pressure, IP Animation: Arterial Baroreceptor Reflex, IP Animation: Capillary Pressures and Capillary Exchange

November 8th

- 10 Respiratory Function Tests and Volume Determinations
Selected Exercise Physiology Applications (Vernier)
PhysioEx Exercise # 7
IP Modules: IP Animation: Pulmonary Ventilation, IP Animation: Control of Respiration
IP Animation: Gas Exchange

November 15th

- 11 Renal Function Tests and Urinalysis
PhysioEx Exercise # 9, 10
IP Modules: Urinary System- IP Animation: Introduction to Body Fluids,
IP Animation: Glomerular Filtration, IP Animation: Processing of Salt and Water in the
Nephron, IP Animation: Reabsorption and Secretion in the Proximal Tubule,
IP Animation: Mechanisms to Control Acid-Base Homeostasis, IP Animation: Acid-Base
Problems

November 22nd

Thanksgiving Holiday - Labs Will Not Meet This Week

November 29th

LAB EXAM 3- Covers Labs 8-11

Lecture Final Exams Begin Monday December 6th -

**For more information consult the BIOL2124 and BIOL2324
Human Physiology Course Syllabi
and the supporting
ASU Human Physiology Blackboard (Bb) Coursepages
Contact your Lab and/or Lecture Instructor(s) for Questions or Additional Information**

Biology 2124 Human Physiology Laboratory-
FALL 2021

Student Information & Agreement Sheet - Angelo State University

I, _____, (print/type your name)
have read the information contained in the Biology 2124 Human Physiology Lab course syllabus
for the **Fall 2021 Semester** at Angelo State University and fully understand the expectations,
requirements, and regulations for completing this course successfully. In addition, I pledge to
maintain the highest standards of academic honesty, integrity, and discipline while I am enrolled in
this course.

Date Bio2123/2323 Human Anatomy (or equivalent was completed)_____.

Human Physiology LECTURE section (Instructor, day, time,) (required):

Academic major (required):_____.

Classification (required):_____.

Student's ASU ID#_____.

Hometown_____.

ASU Email and other addresses you check regularly (required):

_____.

Phone # (optional)_____. In some rare cases I have found it
necessary to contact a student.

I acknowledge that I understand and am responsible for the material contained in the syllabus.

SIGNATURE:_____. TODAY'S DATE:_____

