

Anatomy and Physiology Structure & Function
BIOL 1411 Course Syllabus
Pulaski Technical College/Baptist Health Schools Little Rock
Spring 2014

Instructor Information

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Or Course Messages

Course Description

4 credit hours (3 hours lecture, 2 hours lab)

Meeting Times: Lecture – online
Laboratory (Room 1514) – Monday, 2:00-3:50 pm

This course is a one-semester survey of the structure and function of the twelve organ systems of the human body and how they work together to maintain homeostasis. Prior knowledge of general cellular biology is expected. This course is designed for allied health and non-majors and may not be used as credit for, or be taken after successful completion of, BIOL 1402 or BIOL 1403. 3 lecture hours, 2 lab hours.

Course Resources

Textbook: *Anatomy & Physiology: Foundations for the Health Professions*.
First Edition. Roiger, Deborah, MEd. McGraw-Hill.
Laboratory Manual: *Laboratory Manual for Anatomy & Physiology*,
Customized Edition. Martin, Terry. McGraw-Hill
Online Supplement: McGraw-Hill Connect Account (<http://connect.mcgraw-hill.com>)

Course Objectives

Upon completion of this course, the student should be able to:

- Define anatomy, physiology, and homeostasis and describe the location of structures in the human body using anatomical terms of direction and regions.
- List the levels of organization of the human body; at the cellular level: describe cell organelles and explain their functions, compare methods of transport across a cell membrane, describe the process of mitosis; at the tissue level: describe the four classifications of tissues; at the organ level: identify the human body systems and their major organs.
- Explain how the layers and structures of the skin work together to carry out the functions of the integumentary system. Use medical terminology related to the integumentary system.
- Compare and contrast the anatomy of compact and spongy bone, describe bone formation, remodeling, and repair, summarize the functions of the skeletal system, and use medical terminology related to the axial and appendicular skeleton.
- Describe the structural components of a skeletal muscle, describe a muscle contraction at the molecular level, summarize the functions of the muscular system, and use medical terminology related to the muscular system.
- Describe the anatomy of a neuron, describe major landmarks of the brain and state their functions, compare and contrast the functions of the nervous system divisions, explain the pathway for a sensory message sent to the brain to be processed as a motor response, and use medical terminology related to the nervous system.

- Describe the sensory pathway for touch/pain, taste, smell, hearing, equilibrium, and vision. Use medical terminology related to the senses.
- List the major hormones, along with their target and functions, of each of the endocrine system glands. Use medical terminology related to the endocrine system.
- Identify the components of blood, describe the body's mechanisms for controlling bleeding, and explain what determines blood types.
- Identify chambers, valves, and features of the heart, trace blood flow through the heart, describe the events that produce the heart's cycle, explain the factors that govern cardiac output, explain how blood pressure is regulated, and use medical terminology related to the cardiovascular system.
- Explain the route of lymph from the blood and back again, identify lymphoid tissues and organs and explain their function, and use medical terminology related to the lymphatic system.
- Trace the flow of air from the nose to the pulmonary alveoli and relate the function of each part of the respiratory tract, describe the mechanics for transporting blood gases, explain how respiration is regulated, and use medical terminology related to the respiratory system.
- Describe the digestive anatomy of each digestive organ and explain the physiology of mechanical and/or chemical digestion in each. Use medical terminology related to the digestive system.
- Describe the anatomy of the kidney and nephron, describe filtration, reabsorption, and secretion, explain how urine volume and concentration is regulated, and use medical terminology related to the excretory system.
- Describe the male and female sex organs and their functions, explain the hormonal control of the adult male and female reproductive systems, list the requirements of pregnancy, and use medical terminology related to the male and female reproductive systems.

Attendance, Course and Laboratory Policies

Lecture and Laboratory Attendance

Regular logging in and participation for the online portion of this course is vital to success. Students who do not have meaningful participation for more than seven days will be subject to administrative withdrawal.

Laboratory attendance is required. A student who misses more than two labs will have their grade dropped one letter grade. If more than three labs are missed, the student will automatically fail the course, no matter the reason or excuse. If this occurs before the last day to withdraw, the student will receive a "WX." Eligibility for financial aid in this course is based on student participation. You will not be marked as having attended until you provide meaningful activity in the course.

Lecture Schedule

Learning nodules will become available as the semester progresses. Each module includes required reading, PowerPoint slides, and homework assignments. At the end of each module, an examination will be given online.

This course will essentially cover one chapter per week. Students cannot afford to get behind and should therefore plan regular time to set aside for study of the material just as if you were blocking off time to attend a class.

UNIT I

Anatomical & Physiological Terms (Ch. 1)
 Levels of Organization of the Human Body (Ch. 2)
 Integumentary System (Ch. 3)
 Skeletal System (Ch. 4)

Unit II

Muscular System (Ch. 5)
 Nervous System (Ch. 6)
 Nervous System Senses (Ch. 7)

UNIT III

Endocrine System (Ch. 8)
 Cardiovascular System (Ch. 9)
 Heart and Vessels (Ch. 10)
 Lymphatic System (Ch. 11)

UNIT IV

Respiratory System (Ch. 12)
 Digestive System (Ch. 13)
 Urinary System (Ch. 14)
 Reproductive Systems (Ch. 15 & 16)

Lecture Assignments & Quizzes

Each system covered will have online assignments to be completed. This will require access with the McGraw-Hill Connect account. Students are given two attempts per assignment; the average score will be used. Each assignment has a due date and time, typically Mondays at noon. After the submission period has ended, assignments will not be accepted for any reason, including technical issues.

Laboratory Schedule

Laboratory activities are chosen from the laboratory manual for the students to complete during the laboratory period. Due to the set-up and nature of the exercise, no laboratory can be made up by a student under any circumstances.

Laboratory Assignments: Activities and Review Sheets

As a part of each laboratory, there will be activities in which to participate, and anatomical models set to aid in student learning. Participation and sufficient time spent studying will be a consideration the student's grade for the lab. In addition, a review sheet will be completed. Depending on the nature of the exercise, the review sheets will be due at the end of laboratory or the following week. A review sheet cannot be turned in if a student does not attend and stay for the entire exercise.

Course Grading

The overall course grade will be based on performance in two areas: lecture and laboratory.

Online:

Exams:	200 points (4 x 50 points each)
Chapter Review:	120 points (12 x 10 points each)
Cumulative Final Exam:	150 points

Laboratory:

Lab Practicals:	200 points (4 x 50 points each)
Lab Activities:	120 points (12 x 10 points each)

The overall percent grade is determined by dividing points earned by points possible. Letter grading is as follows:

A: 100% - 90.0% B: 89.9% - 80.0% C: 79.9% - 70.0% D: 69.9% - 60.0% F: 59.9% or below

No extra credit work will be given at any point in the semester. Late assignments cannot be made up. An exam cannot be taken after it closes. The instructor will not respond to requests to round up grades at the end of the semester. Quality of work, timeliness, and effort throughout the semester are taken into account.

The student is responsible for maintaining his/her own record of points earned. "My Grades" on Blackboard will have student grades. Any discrepancies should be brought to the attention of the instructor by making an appointment.

Blackboard Learning System

This course is managed using an online software system known as Blackboard. Blackboard is accessed using a web browser over the internet. Orientation to Blackboard is provided during the first week of class. For help using Blackboard, contact the Online Help Desk which may be found in your Blackboard Course.

If you need help for issues not related to Blackboard, such as logging into the portal, contact the PTC Student Help Desk by emailing onlinecourses@pulaskitech.edu or appearing in person to their office in IT303 with photo ID.

If you need help while doing homework or taking exams online, contact the McGraw Hill/Connect Help Desk which can be found on the page on which you are taking the exam.

If you need assistance with your homework assignments, contact your instructor or go to one of the Learning Assistance Center labs for free tutoring.

School Policies

The PTC Student Handbook rules and regulations will be enforced in this class at all times. The same conduct and responsibility expected from BHSLR will be required for PTC courses.

Under no circumstances can a student copy work from textbooks, other students, other resources, or internet. Assignments should be written using student's own words. Exams must be taken alone. The minimum penalty for cheating is a zero for the assignment, but can include course failure.

A reliable personal computer, relevant software, and internet access are required when taking an online course. You must enter Connect through Blackboard for assignments to be recorded. Students are expected to confront and work through any technical issues. If assistance with Blackboard is needed, students can get 24/7 help using the bookmark on Blackboard or by calling 1-866-588-3194. Unless there is a Blackboard outage, all submissions must be done through Blackboard. All communication with the instructor must be done through email.

Use of cell phone is not permitted during meeting times. If a student carries a cell phone, it should be placed on silent or turned off and be put away. Students needing to receive or place a call or message should step out of the meeting room in a non-disruptive manner to do so. A student using a cell phone in class, or whose device causes a disruption, will be immediately dismissed from class, resulting in any loss of points for that meeting.

No food or drink is permitted in the laboratory room at any time. Proper safety and hygiene is expected of all students at all times.

Academic Integrity Policy

It is expected that all students who attend PTC conduct themselves in a manner appropriate for the college experience. Academic integrity is a vital component of collegiate behavior. The student handbook states:

“The gaining of knowledge and the practice of honesty go hand-in-hand.”

The handbook also states:

“The responsibility and authority of initiating discipline arising from violations of the rules against dishonesty during the process of the course are vested in the instructor of that course.”

The complete Academic Integrity Policy can be found in the PTC Student Handbook.

Students with Disabilities Policy

PTC is committed to fulfilling all federal requirements as stated in the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Accommodations are available to students who have documented disabilities. Students who request accommodations must register with the Coordinator of Disability Services in Counseling Services: 501/812-2220 or www.pulaskitech.edu prior to the semester of planned enrollment, and must provide recent documentation of medical, educational, and/or psychological records.

Students who need accommodations should inform the instructor at the beginning of the course.

Accommodations will only be provided if the instructor receives a letter of approved accommodations from the Coordinator of Disability Services. Failure to provide sufficient notification may result in a delay of services.

Course Evaluations

Students may be asked to evaluate their instructor and the course near the end of the semester. These student evaluations are very important to the improvement in the quality of instruction and course materials. All results are anonymous and shared with the faculty only after the semester is over and grades have been posted.

Information Literacy

Pulaski Technical College is committed to the Information Literacy Competency Standards for Higher Education as established by the Association of College and Research Libraries and endorsed by the National Forum on Information Literacy. Therefore, all courses will incorporate an information literacy component so that, by graduation, all students will be able to recognize the need for information, then locate, evaluate, synthesize and communicate information in an ethical manner. Information literacy encompasses critical thinking, research, media, technology, health, business and visual literacy skills to produce lifelong learners who can make informed decisions in the workplace and in their personal lives.

Tutoring/Learning Assistance Center

If you feel you need help grasping the material in this class (it is a lot of material to cover in one semester), contact the Learning Assistance Center. The LAC provides free, drop-in tutoring in most subjects taught at PTC. The LAC also has an on-site computer lab, on-line tutoring, a collection of handouts, and information on upcoming student success workshops.

Contact the Learning Assistance Center as soon as you feel like you are having difficulty with a class - do not wait until the end of the semester.

http://www.pulaskitech.edu/programs_of_study/tutoring_services.asp

Course Agreement Form

Please read, complete, and return this form to the instructor:

I, _____ have read
the course syllabus and understand and am willing to follow the requirements and policies:

Resource Requirements
Attendance and Course Policies
Laboratory Policies
Online Assignment and Exam Policies
Course Grading
School Policies
Electronic Device Policy

Student Signature: _____

Email: _____

(It is recommended that you use the school email.
If that is not possible, please convey this to me
verbally, in addition to listing it here.)

Date: _____

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