

Anatomy & Physiology I

BIOL-2401

Summer II 2021 Sections 5BD CRN-40871, 5BE CRN-40872 4 Credits 07/12/2021 to 08/09/2021 Modified 05/31/2021

Meeting Times

This is a blended course. That means all lectures will be posted as videos online and labs will be held in person four days a week.

Lab Sessions

Monday, Tuesday, Wednesday, Thursday, 12:10 PM to 2:40 PM, Zoom

Contact Information

Instructor: Melissa K. Layton M.S.

Email: via eCampus

Office: H-275

Phone: 979-209-8886 (office)

936-681-0159 (call or text)

Live Q&A Sessions

Days: Sunday through Friday

Times: 5:30-6:00pm

Description

3 lecture hours and 3 lab hours per week; 96 total contact hours. Credit: 4 semester hours.

Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized. Biology 2401 is the first course in a two semester sequence which examines the systems of the human body using an integrated approach. Lab activities reinforce lecture topics.

Requisites

Prerequisites: A student must be college ready in reading according to TSI college-ready standards.

Recommendation: BIOL 1406 is recommended.

Core Curriculum Statement

Through the Texas Core Curriculum, students will gain a foundation of knowledge in human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning. For details relating to this core course, please see:

<http://www.blinn.edu/academics/core-curriculum.html> (<http://www.blinn.edu/academics/core-curriculum.html>)

Outcomes

Lecture Based Outcomes

Use anatomical terminology to identify and describe locations of major organs of each system covered.

Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.

Describe the interdependency and interactions of the systems.

Explain contributions of organs and systems to the maintenance of homeostasis.

Identify causes and effects of homeostatic imbalances.

Describe modern technology and tools used to study anatomy and physiology.

Lab Based Outcomes

Apply appropriate safety and ethical standards.

Locate and identify anatomical structures.

Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.

Work collaboratively to perform experiments.

Demonstrate the steps involved in the scientific method.

Communicate results of scientific investigations, analyze data and formulate conclusions.

Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.

Materials

Textbook: *Anatomy Physiology-The Unity of Form and Function*, 9th Edition, 2021, Saladin, McGraw-Hill. Packaged with Connect access code

Lab Manual: Biology 2401 Lab Access Code. Available at both Bryan and Brenham Bookstore. Top Hat Publishing.

Disposable Lab Coat: Available at both Bryan and Brenham Bookstore.

Course Requirements

Daily Work

- **SmartBook assignments** - These are intended to help introduce the students to the lecture material for that module.
- **Top Hat assignments** - These are intended to help introduce the students to the lab material for that module.
- **In Class Activities** - These are activities that will be done using Top Hat or Connect during lab time. They are designed to encourage student engagement with the material and initiate questions from students.
- **Homework assignments** - These activities are designed to help students (1) practice answering questions over the material and

(2) identify information that they don't understand.

- **Mock Exams and Mock Practicals** - These are practice exams. **NO** they are not the same questions that you will see on the real exam or practical. They have the same number of questions, the set up is similar to what you will experience on the exams (1 question per page and no going back), and they are timed. You will need to complete the mock exam and the mock practical three (3) times each before you will be allowed access to the real exam or practical. These activities are due on the weekend of the unit exam (Sunday by 11:59pm).
- **Make up points** - There are make up activities available for each unit. They are designed to help you practice answering questions about over the material. These can be completed to replace any points missed on daily work for that unit. Your daily score cannot go above 100%.

Lecture Exams

- There will be four lecture exams. These exams cover the material covered in that unit and consist of multiple choice questions.
- The lecture exams will consist of 70-80 questions.
- A review will be posted to help you prepare for the exam.

Lab Exams (Practicals)

- There will be four lab practicals. The lab practicals will cover the material from the labs, including identifying structures, parts of experiments, and ordering sequences of events.
- The lab practicals will consist of 50-55 questions.
- A review checklist will be posted to help you prepare for the practical.

Final Exam

- A comprehensive final exam will be administered during the finals period. It will cover the lecture material.
- The final exam consists of 100 questions.
- A modified version of the lecture exam reviews will be posted to help you prepare for the final exam.
- The final exam will be used to replace your lowest lecture exam or lab practical, provided that the final exam grade is higher than the lowest score.

Make up Exams or Practicals

- Make ups will only be given with a valid excuse. If you have a potential scheduling conflict, please contact your professor as soon as possible. If the makeup exam cannot be rescheduled within a reasonable time frame, the final exam grade will be used to replace the missing exam or practical grade.

✓ Evaluation

Criteria for grading

Evaluation Methods	Points
Comprehensive Final Exam	20%
Lecture Exams (4)	40%
Lab Practical (4)	20%

Daily Work (Homework / Labs / In Class Activities)	20%
Total Points	100%

Grade distribution

Letter Grade	Percent Total
A	90 to 100 %
B	80 to 89.9%
C	70 to 79.9 %
D	60 to 69.9 %
F	Below 59.9 %

Rounding:

In order to be considered for rounding, your final grade must be within 0.5% of the next letter grade. (Ex. 79.4% is a C).

Rounding is not automatic. I will look to see if a student has watched the lecture videos, done the homework, made good use of make up points, etc. before considering if I will round up their grade.

How to earn the grade that you want:

Image result for study cycle

How to Succeed in this Course

Science courses may be challenging and difficult. Most successful students spend two to four hours studying per week for each credit hour of the course.

Key Points

- Have access to all the materials and technology required for this course (webcam, microphone, computer, reliable internet, etc).
- Attend all classes. Each lecture builds on the previous lecture. Stay ahead of the material.
- Come to class prepared by reading the textbook and/or lab manual beforehand and taking notes before class to improve success.
- If you have a question during lecture, go ahead and ask it. Chances are that at least three other students have this same question.
- Know your deadlines and course policies by looking at the syllabus, instructor announcements, and eCampus dates, schedules, and news items.
- Work through lots of practice problems in addition to your homework.
- Form study groups with your peers.
- Ask your professors for help, visit office hours, and, if needed, request an appointment to see your instructor one-on-one.
 - Be prepared when you visit with your instructor and have questions related to content ready.
- Seek help from Blinn College's tutoring services, if needed.
- Be responsible for your own learning by actively engaging in the course.

Blinn College Policies

All policies, guidelines, and procedures in the [Blinn College Catalog \(http://catalog.blinn.edu/\)](http://catalog.blinn.edu/), [Blinn College Board Policies \(http://pol.tasb.org/Home/Index/1204\)](http://pol.tasb.org/Home/Index/1204), and the [Blinn College Administrative Regulations \(https://www.blinn.edu/administrative-regulations/\)](https://www.blinn.edu/administrative-regulations/) are applicable to this course.

[Specific information on civility, attendance, add/drop, scholastic integrity, students with disabilities, final grade appeal, alternative retailers, campus carry and proctoring arrangements and cost. \(http://www.blinn.edu/syllabus-policies/\)](http://www.blinn.edu/syllabus-policies/)

Notice of any action taken under these protocol and procedures, by Blinn College or its employees, may be delivered by hand, through the U.S. Postal Service, or electronically to the student's Blinn Buc e-mail account. Notice shall be deemed received upon actual receipt, on deposit in the U.S. Mail, or upon entering the information processing system used by Blinn College for Blinn Buc e-mail accounts, whichever first occurs.

Information about the changes Blinn has made to the May Minimester, Summer I, and Summer II semesters: [Back with Blinn \(https://www.blinn.edu/back-with-blinn/index.html\)](https://www.blinn.edu/back-with-blinn/index.html).

* Course Policies

[Please read: May Minimester, Summer I, and Summer II 2021 General Classroom Procedures. \(http://www.blinn.edu/back-with-blinn/course-policies.html\)](http://www.blinn.edu/back-with-blinn/course-policies.html)

Problem Resolution

If you have a complaint about your class, you should first request a conference with your instructor to try and resolve the problems or issues. If the problems or issues cannot be resolved at the instructor level, you should request a conference with the Biology Department Head or Assistant Dean.

Dr. Michelle McGehee
Office: D-201
Phone: 979-209-7378
Email: michelle.mcgehee@blinn.edu

Laboratory Safety

Students will be provided with laboratory safety training during the first week of class. Students are expected to follow all safety rules including rules related to proper lab attire. **Closed toe shoes are required in the laboratory.** Students that fail to follow this rule, will be required to leave the lab and will be assigned an unexcused absence for the class day.

Attendance Policy

Lecture attendance will be taken using online activities that must be completed within a set window of time. There will be two of these assignments due each week. Failure to complete an assignment will count as an absence. Students are also required to attend lab sessions either face-to-face or via zoom. Attendance will be based on students submitting answers to Top Hat or Connect questions. Students who show up late, leave early, or answer fewer than 90% of the questions will be counted absent for the day.

Students are allowed two weeks (= 4 days) of unexcused absences and will be dropped after their fifth unexcused absence.

Excused absences are limited to (1) military service (2) representing a school (i.e. Blinn College, Texas A&M, or High School) in an official capacity, or (3) religious holiday with written notice given by the 15th day of the semester.

Unexcused absences include, but are not limited to: personal issues, doctor's appointments, funerals, work schedule, technology issues, illness, arriving late, leaving early, dropping out for an extended period of time, etc. You have 4 days of unexcused absences, use them wisely.

Sound during virtual meetings can be an issue. Personal conversations in the classroom or remotely can get you kicked out of the class for the day. That will count as an **unexcused absence**.

Attending Remotely

I understand that due to health concerns, some students may opt to take the entire course remotely. Students who select this option need to (1) go to ecampus, (2) download and fill out the "Remote Attendance Contract", and (3) submit a completed and signed copy of the contract to the dropbox provided.

Make up Policy

Daily Work

- In class activities must be done during the assigned class time. There are no "do overs" for people who missed class that day.
- If you miss an assignment or miss points on an assignment, you can replace the missed points with "make up points."
- **Make up points** - There are make up activities available (see Connect) for each unit. These can be completed to replace any points missed on daily work for that unit. Your daily score cannot go above 100%.

Exams or Practicals

- Make ups will only be given with a valid excuse. If you have a potential scheduling conflict, please contact your professor as soon as possible. If the makeup exam cannot be rescheduled within a reasonable time frame, the final exam grade will be used to replace the missing exam or practical grade.

HonorLock

All exams and practicals are taken using HonorLock. You must have a computer (not tablet or smartphone), working webcam and access to a mirror (handheld, bathroom, etc.).

Before the exam starts you will be asked to perform a room, work space, and phone checks. During the practical you will be asked to perform additional scan of your room, work space, computer, and phone location. Students who **fail to complete** these tasks will receive a **zero** on their practical.

During your exam, you are being recorded (audio and video). I will go back and review your test session. I must be able to see your face during the entirety of your exam. If a student is found to have used outside resources (notes, cheat sheet, phone, earbuds, websites, roommate, etc.), it will result in an automatic **zero** on his or her exam or practical. If your video gets "shut off" or I cannot see your face during the entire video, it may result in a **zero** on your exam or practical.

Exams and practicals are set up so that students can only see one question at a time and so that you cannot go back to previous questions.

Schedule

Week One	Meeting Details	Testing	Lecture Hours	Lab Hours	Contact Hours
Monday, July 12, 2021	Module 1 - Introduction to Major Themes in Anatomy and Physiology Lecture: Introduction to major themes in anatomy and physiology (Ch. 1.1, 1.5, 1.6, 1.8; Atlas A.1-A.4) Lab 1: Safety/Ethics/Teamwork Lab 4: Body Organization		120	120	4.8
Tuesday, July 13, 2021	Module 2: Chemistry Lecture: General Chemistry (Ch. 2.1-3) Lab: Organic Chemistry (Ch. 2.4)		120	120	4.8

Wednesday, July 14, 2021	Module 3: Cell Anatomy & Physiology Lecture: Cell Structure (Ch. 3.1-3.2; 3.4) Cell Functions (Ch. 3.3; Ch. 4.2-4.3) Lab 2: Microscopy Lab 3: Cell Structures and Cell Cycle Lab 5: Measurements and Mechanisms of Transport		120	120	4.8
Thursday, July 15, 2021	Module 4: Histology Lecture: Tissue basics and Epithelial tissue (Ch. 5.1-5.2; 5.5-5.6) Connective, muscle, and nervous tissues (Ch. 5.3-5.4) Lab 6: Epithelial Tissue Lab 7: Connective Tissue Lab 8: Nervous and Muscle Tissue		120	120	4.8
Friday, July 16, 2021	Module 5: Integumentary System Lecture: Integumentary System (Ch. 6.1-6.4) Lab 9: Integumentary System		120	120	4.8
	Lecture Exam 1 and Lab Practical 1: Opens: 12:00pm Friday, July 16 Closes: 11:59pm Sunday, July 18 Exam 1 (Chapters 1-5) Lab Practical 1 (Labs 2-9)	75			3
	Unit 1 - Homework and Labs Due: 11:59pm Sunday, July 18				
Week Two		Testing	LEC.	LAB	Weekly
Monday, July 19, 2021	Module 6: Bone Anatomy and Physiology Lecture: Bone Anatomy and Physiology (Ch. 7.1-7.5) Lab 10: The Skeleton, its tissues and its cells		120	120	4.8

Tuesday, July 20, 2021	Module 7: Skeletal System (Bone ID) Lecture: Bone shapes, features and Axial skeleton (Ch. 8.1-8.3) Appendicular skeleton (Ch. 8.4-8.5) Lab 11: Skull Lab 12: Vertebral column and thoracic cage Lab 13: Pectoral girdle and upper limb Lab 14: Pelvic girdle and lower limb		120	120	4.8
Wednesday, July 21, 2021	Module 8: Joints Lecture: Joints (Ch. 9.1-9.3) Lab 15: Joint anatomy and function		120	120	4.8
Thursday, July 22, 2021	Module 9: Muscle Anatomy and Physiology Lecture: Muscle anatomy and histology (Ch. 11.1-11.3; 11.7) Muscle physiology (Ch. 11.3-11.6) Lab: Review skeletal system		120	120	4.8
Friday, July 23, 2021	Module 10: Muscular System (Muscle ID) Lecture: Muscular system (Ch. 10.1-10.2; 10.4) Lab 16: Head and neck muscles Lab 17: Upper body pt. 1		120	120	4.8
	Lecture Exam 2 and Lab Practical 2:	75			3
	Opens: 12:00pm Friday, July 23	75			
	Closes: 11:59pm Sunday, July 25				
	Exam 2 (Chapters 7, 9, 11)				
	Lab Practical 2 (Labs 10-15)				
	Unit 2 - Homework and Labs				
	Due: 11:59pm Sunday, July 25				
Week Three		Testing	LEC.	LAB	Weekly

Monday, July 26, 2021	Module 11: Muscular System (Muscle ID) Lecture: Muscular system (cont.) (Ch. 10.3; 10.5) Lab 18: Upper body pt. 2 Lab 19: Lower body		120	120	4.8
Tuesday, July 27, 2021	Module 12: Nervous System and Neuron Anatomy Lecture: Nervous system and Neuron structure (Ch. 12.1-12.3) Lab 20 (part 1): Nervous tissue		120	120	4.8
Wednesday, July 28, 2021	Module 13: Neuron Physiology Lecture: Neuron physiology (Ch. 12.4-12.6) Lab 20 (part 2): Muscle fatigue		120	120	4.8
Thursday, July 29, 2021	Module 14: Spinal Cord and Reflexes Lecture 14: Spinal cord and reflexes (Ch. 13.1-13.3) Lab 21: Spinal cord, nerves, and reflexes		120	120	4.8
Friday, July 30, 2021*	Module 15: Brain pt. 1 Lecture: Brain Structures (Ch. 14.1-14.4) Lab 22: Human brain and cranial nerves Lab 23: Sheep brain		120	120	4.8
	Lecture Exam 3 and Lab Practical 3: Opens: 12:00pm Friday, July 30 Closes: 11:59pm Sunday, Aug. 1 Exam 3 (Chapters 10; 12-13) Lab Practical 3 (Labs 16-21)	75			3
	Unit 3 - Homework and Labs Due: 11:59pm Sunday, Aug. 1	75			
Week Four		Testing	LEC.	LAB	Weekly
Monday, Aug. 2, 2021	Module 16: Brain pt. 2 Lecture: Brain Functions (Ch. 14.2-14.5) Lab 22: Human brain and cranial nerves Lab 23: Sheep brain		120	120	4.8

Tuesday, Aug. 3, 2021	Module 17: Autonomic Nervous System Lecture: Autonomic nervous system and the parasympathetic division (Ch. 15.1-15.2) Sympathetic division (Ch. 15.2-15.4) Lab 24: Understanding and using the scientific method (Ch. 1.3)		120	120	4.8
Wednesday, Aug. 4, 2021	Module 18: Receptors and General Senses; Chemical Senses Lecture: Receptors and general senses (Ch. 16.1-2) Chemical senses (Ch. 16.3) Lab 25: General and chemical senses		120	120	4.8
Thursday, Aug. 5, 2021	Module 19: Hearing and Equilibrium Lecture: Hearing and equilibrium (Ch. 16.4) Lab 26: Hearing and Equilibrium		120	120	4.8
Friday, Aug. 6, 2021	Module 20: Vision Lecture: Vision (Ch. 16.5) Lab 27: Vision		120	120	4.8
	Lecture Exam 4 and Lab Practical 4: Opens: 12:00pm Friday, Aug. 6 Closes: 11:59pm Sunday, Aug. 8 Exam 4 (Chapters 14-16) Lab Practical 4 (Labs 22-27)	75			3
	Unit 4 - Homework and Labs Due: 11:59pm Sunday, Aug. 8				
Week Five		Testing	LEC.	LAB	Weekly
Monday, Aug. 9, 2021	Final Exam (Chapters 1-16) Opens: 12:01am Mon., Aug. 9 Closes: 11:59pm Mon., Aug. 9	135			2.7
	Total Contact Hours				96
	*Q Drop Date is Friday, July 30, 2021				

