

# Anatomy & Physiology II

## BIOL-2402

Summer II 2021 Sections 5BD CRN-40873, 5BE CRN-40874 4 Credits 07/12/2021 to 08/09/2021 Modified 07/19/2021

### Meeting Times

#### lecture

lectures are online and asynchronous

#### lab

Monday, Wednesday, 8:00 AM to 10:30 AM, 5BD - H building H107; 5BE - remote

#### lab

Tuesday, Thursday, 8:00 AM to 10:30 AM, 5BD - remote; 5BE - H building H107

### Contact Information

#### instructor: Dr. Michael Ko, Ph.D., MBA

Email: [michael.ko@blinn.edu](mailto:michael.ko@blinn.edu)

Phone: 979-209-8885

#### Office Hours

Monday, Tuesday, Wednesday, Thursday, 10:30 AM to 11:30 AM, virtual via zoom and H107

also by appointment

### 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. Anatomy and Physiology II is the second course in a two semester sequence which examines the systems of the human body using an integrated approach.

#### Requisites

Prerequisites: Biology 2401 with a grade of "C" or better.

### 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

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## 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

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

**Lab Manual:** Digital Lab Manual by Top Hat Publishing: please register by visiting website: <https://app.tophat.com/e/>

(<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fapp.tophat.com%2F%2F344090%2F&data=04%7C01%7Csteve.simcik%40blinn.edu%7C0ce5113fd5224119198708d86fa5ad3a%7C60448a85d0074d57a583bfec98e99c29%7C1%7C0%7C637382104646075350%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0%3D%7C1000&sdata=xa%2B3Z9nHgB%2FgObhCzpFq%2B8umlk28PvSabyXuBjHhiZo%3D&reserved=0>)

<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fapp.tophat.com%2F%2F344090%2F&data=04%7C01%7Csteve.simcik%40blinn.edu%7C0ce5113fd5224119198708d86fa5ad3a%7C60448a85d0074d57a583bfec98e99c29%7C1%7C0%7C637382104646075350%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0%3D%7C1000&sdata=xa%2B3Z9nHgB%2FgObhCzpFq%2B8umlk28PvSabyXuBjHhiZo%3D&reserved=0>

Note: Course Join Code is: \_\_\_\_367899\_\_\_\_.

Click on the link to access the lab book through the [Blinn bookstore](https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fblinnbookstore.com%2Fmapping%2Fconsumer%2Fdesire2learn%2Finstances%2Fblinn%2Fcampus-picker&data=04%7C01%7Csteve.simcik%40blinn.edu%7C0ce5113fd5224119198708d86fa5ad3a%7C60448a85d0074d57a583bfec98e99c29%7C1%7C0%7C637382104646075350%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0%3D%7C1000&sdata=Jtv489a%2FxrIV0R4AbkL%2BAak1IXF5ApiJwRwACDjkOXM%3D&reserved=0). (<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fblinnbookstore.com%2Fmapping%2Fconsumer%2Fdesire2learn%2Finstances%2Fblinn%2Fcampus-picker&data=04%7C01%7Csteve.simcik%40blinn.edu%7C0ce5113fd5224119198708d86fa5ad3a%7C60448a85d0074d57a583bfec98e99c29%7C1%7C0%7C637382104646075350%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0%3D%7C1000&sdata=Jtv489a%2FxrIV0R4AbkL%2BAak1IXF5ApiJwRwACDjkOXM%3D&reserved=0>)

<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fblinnbookstore.com%2Fmapping%2Fconsumer%2Fdesire2learn%2Finstances%2Fblinn%2Fcampus-picker&data=04%7C01%7Csteve.simcik%40blinn.edu%7C0ce5113fd5224119198708d86fa5ad3a%7C60448a85d0074d57a583bfec98e99c29%7C1%7C0%7C637382104646075350%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0%3D%7C1000&sdata=Jtv489a%2FxrIV0R4AbkL%2BAak1IXF5ApiJwRwACDjkOXM%3D&reserved=0>

Other: lab coat

# Course Requirements

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**Lecture exams:** There will be five exams (four during the semester + 1 final), which may be any combination of fill-in-the-blank, multiple choice, identification, short answer, matching, and written response. All tests will be closed-book and need honorlock. All

exams will count toward your grade. Make-up exams are available to students with excused absences (**student must provide documentation for each day delayed**). No penalty will be applied to the test grade if the student has an excused absence. Students who do not have an applicable excuse to miss an exam generally can still take a make-up exam. However, penalties will be applied to the grades in this case. Generally, 1) the student will forfeit any curve / extra credit points, 2) a 10% deduction will be applied for each day the test is delayed. The final exam is cumulative and will only consist of multiple choice questions. Last semester, 41 questions on the final were "common" (shared among all sections of A&P 2). No scratch paper allowed for lecture tests and the final.

**Lab exams:** There will be four lab exams (non-cumulative). Questions are multiple choice, multiple select, or ordering. Same make-up procedure as above. You can have scratch paper for lab exams. Lab tests are closed book and need honorlock.

**Class participation:** This portion of your grade is made from a combination of your lecture / lab quizzes and the SPOI. Any pop quiz will be included in this section. Same make-up procedure as above for lecture quizzes. Generally, there are no make-ups for connect or lab quizzes.

**lecture quizzes:** There will be 4 lecture quizzes. The chapter covered and dates for each quiz will be announced ahead of time. Each quiz is written response and can range from 10 - 30 points. No scratch paper allowed for lecture quizzes. These quizzes are closed book and need honorlock.

**lab quizzes:** We will have 4 lab quizzes. Each is worth 10 points. The labs covered on each quiz and the quiz dates will be announced ahead of time. Questions will be identification or fill-in-the-blank. These quizzes are open book and do not need honorlock. Lab quizzes are not curved.

**student perception of instruction (SPOI):** The SPOIs that will be made available to you toward the end of the semester are helpful not only to me but also to Blinn. To encourage students to complete the survey I count the completion of the survey as a lab quiz grade. It is all-or-nothing (10 points). The free response questions are not required, but I encourage you to speak your mind - positive or negative.

**pop-quizzes:** While I generally do not give pop-quizzes, I reserve the right to give one. These would be a written response questions worth 5 points. One of the lab quizzes would become 5 points in this case.

**CONNECT quizzes:** There are 10 online CONNECT quizzes. These quizzes can be found on the publisher (McGraw-Hill) website. Instructions for registering for CONNECT are provided on eCampus. Each quiz is worth 5 points. All of the questions are multiple choice or true / false. Quizzes are open-book, and there is no time limit other than to submit the quizzes by the appropriate deadline. A score of 90+% will get you all 5 points; 80s = 4 points; 70s = 3 points; 60s = 2 points; 50s = 1 point; <50% = 0 points.

## ✓ Evaluation

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### Grading:

Your overall grade for the course will be determined from the final exam, the four lecture exams, the lab section, quizzes, and class participation.

	<u>points</u>		<u>%</u>	<u>points needed</u>
Test 1	100	A	90 - 100	≥ 900
Test 2	100	B	80 - 89	800 - 899
Test 3	100	C	70 - 79	700 - 799
Test 4	100	D	60 - 69	600 - 699
Final	200	F	< 60	≤ 599
Lab 1	50			
Lab 2	50			
Lab 3	50			

Lab 4	50
Connect	50
class participation	150
Total	1000

### 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.

### HonorLock

all tests and lecture quizzes will be linked to HonorLock, an online proctoring company. you need a webcam.

- 1) your webcam feed is recorded and saved
- 2) if the webcam feed stops the test session stops
- 3) your computer screen is recorded and saved (I see you AND your computer screen)
- 4) you must have your audio enabled to make sure someone in the next room is not shouting info to you.
- 5) your internet activity is monitored during the test
- 6) before the verification process you should run a network speed test
- 7) during the verification process a photo is taken of your face and ID (blinn ID is fine)
- 8) during the verification process you need to rotate your camera 360 degrees in X, Y, and Z planes. no notes, books, or other electronics except for the computer in front of you (this includes headphones, earbuds). most laptops have a built-in camera. some of you may be thinking "i'll stick something behind the monitor and slide it up for the test. *if your eyes wander off of your monitor for any amount of time or too often I will give you a zero.*
- 9) on screen basic calculators will be made available if needed
- 10) copy, paste, printing, and right click functions are disabled during the test. your browser is also locked during the test.
- 11) you must disconnect additional monitors - the system can detect additional monitors that have not been disconnected
- 12) you must remain in front of your computer with your eyes mostly looking forward at the screen. you cannot leave for the bathroom so make sure to use the restroom before the test. if you are not in front of your computer the time and question you are on will be noted, and that will be the last question that will be counted. any remaining questions will be counted as incorrect.

13) you may use 1 scratch paper for LAB tests. you will need to show both sides of the paper to the camera to verify both sides are blank and always have the paper in front of you. *you cannot use scratch paper for lecture tests.*

14) you need to use Chrome and download the Chrome Extension (removable)

15) it is your responsibility to make sure your internet connection is adequate. if a test loads slowly that may mean you need to make arrangements to take tests in another location.

## Blinn College Policies

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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

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**Please read: Spring 2021 General Classroom Procedures. (<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 and a lab coat 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.

eCampus / D2L: (<https://ecampusd2l.blinn.edu>)

Lecture notes and other materials can be found on your biology 2402 eCampus webpage. If you encounter any problems with eCampus (logging on, navigating, etc.) please contact the Distance Education Department (209-7298).

**Special needs:** Students needing special accommodation due to a disability must obtain authorization from the Office of Disability Services located in the College Park Center Administration Building. Students whose first language is not English are not considered learning disabled.

The above requirements and policies are discussed more fully in the [Blinn College Student Handbook](#).

**E-mail accounts:** All Blinn students will be given a Blinn e-mail account. The College will use this account to contact you if need be. You may use your personal as well as your blinn e-mail accounts to contact me. Any mass e-mails to the class will be through your Blinn accounts. Please check your Blinn e-mail accounts regularly.

**Class policies:**

**Attendance:** The College District believes that class attendance is essential for student success; therefore, students are required to promptly and regularly attend all classes. Each class meeting builds the foundation for subsequent class meetings. Without full participation and regular class attendance, students may find themselves at a severe disadvantage for achieving success in college. Class participation shall constitute at least ten percent of the final course grade. Faculty will require students to regularly attend class and will keep a record of attendance from the first day of class and/or the first day the student's name appears on the roster through final examinations. If a student has one week's worth of absences during the semester (2 classes), he/she will be sent an e-mail by the College requiring the student to contact his/her instructor and schedule a conference immediately to discuss his/her attendance issues. If the student subsequently accumulates two weeks worth of absences (4 classes), he/she may be administratively withdrawn from the class.

There are four forms of excused absence officially designated by Blinn College: (1) observance of religious holy days: the student should notify his/her instructor(s) no later than the 15<sup>th</sup> day of the semester concerning the specific date(s) that the student will be absent for any religious holy day(s); (2) representing Blinn College at an official institutional function; (3) official involvement in a high school activity for "dual credit" students; and (4) military service. **Other excuses will be considered and may be considered excusable at the instructor's discretion with documentation.** Missing lab will count as one absence whether you are physically in the class or viewing the class remotely. **E-mails from students explaining absences must be received within 1 day. After 1 day, documentation must be presented to remove an unexcused absence. Documentation must be presented if a test / major quiz is missed to avoid penalties being applied to your score.**

Please refer to "Back to Blinn" for any Covid related questions.

96 hour contact rule - State policy dictates that students enrolled in a class that involves a lab have 96 hours of contact with their professor for the semester. Therefore, we are expected to use the full lecture and lab periods. As such, do not leave either period early otherwise you will be counted absent.

**Food and drinks** are not allowed in the laboratory or classroom at any time.

**Electronic device policy:** Cell phones, pagers, iPods, etc. should be turned off during class. Laptop use to follow / take notes is encouraged. You are welcome to record the lectures.

**Honor code:** Blinn College does not tolerate cheating, plagiarism, or other acts of dishonesty. Definitions of these acts and procedures for dealing with them are described in "Scholastic Dishonesty" in the [Blinn College Student Handbook](#).

**Classroom attire:** please use good judgment; wear shoes (covered toes) for lab; no obscene writing or graphics on clothing; rules for the lab are more stringent (i.e. lab coats required). Students will be dismissed and counted absent for not having proper lab clothing.

**Dropping:** If a student chooses to withdraw from the course, it is that student's responsibility to complete a drop order at the Office of Enrollment Services. The last day to withdraw with a "Q" is Friday, July 30.

**Civility statement:** Members of the Blinn College community, which includes faculty, staff and students, are expected to act honestly and responsibly in all aspects of campus life. Blinn College holds all members accountable for their actions and words. Therefore, all members should commit themselves to behave in a manner that recognizes personal respect and demonstrates concern for the personal dignity, rights, and freedoms of every member of the College community, including respect for College property and the physical and intellectual property of others. Civility applies to attire as well as language and behavior.

If a student is asked to leave the classroom because of uncivil behavior, the student may not return to that class until he or she arranges a conference with the instructor: it is the student's responsibility to arrange for this conference.

## Schedule

When	Topic	Notes
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When	Topic	Alternative BIOL 2402 Class and Lab Schedule					
Date	Ch.	Lecture topic	Lab	Lab topic	contact hours	lec. min	lab min
7/12/21	26	Introduction cellular respiration	1	O <sub>2</sub> consumption	4.7	130	150
7/13/21	26 17	cellular respiration endocrine system	2	endocrine	4.7	130	150
7/14/21	17 25	endocrine system digestive system	3	digestion	4.7	130	150
7/15/21	25	digestive system quizzes		review	4.7	130	150
7/16/21	18	blood		lab test 1 (1 - 3)	4.7	130	150
7/19/21		TEST 1 (ch. 17, 25, 26)	4 7	blood cells blood typing blood vessels	4.7	130	150
7/20/21	19	heart	5	heart	4.7	130	150
7/21/21	19 20	heart blood vessels	6 8	ECG blood pressure	4.7	130	150
7/22/21	20 21	blood vessels lymphatic system quizzes		review	4.7	130	150
7/23/21	21	immunity		lab test 2 (4 - 8)	4.7	130	150
7/26/21		TEST 2 (ch. 18 - 21)	9 10	lymphatics lung anatomy	4.7	130	150
7/27/21	22	respiration	11	resp. responses	4.7	130	150
7/28/21	22 23	respiration urinary	12	kidney	4.7	130	150
7/29/21	23	urinary quizzes		review	4.7	130	150
7/30/21	24	electrolytes Q-drop day		lab test 3 (9 - 12)	4.7	130	150
8/2/21		TEST 3 (ch. 22 - 24)	ch. 27		4.7	130	150

When	Topic	8/2/21	28	female repro.	13	male repro.	4.7	130	150
					14	female repro.			
		8/4/21	28	female repro.	15	development	4.7	130	150
			29	development					
		8/5/21	29	development		review	4.7	130	150
				lab quiz					
		8/6/21		TEST 4 (ch. 27 - 29)		lab test 4 (13 -15)	4.7	130	150
		8/9/21		FINAL			2	135	
				total contact hours			96		