

## BIOL 326: Physiology

<b>Location:</b>	Evening
<b>Address:</b>	1001 Rogers Street Columbia, MO 65216
<b>Section:</b>	19FALL1/BIOL/326/EVA
<b>Semester Credit Hours:</b>	3
<b>Class Day(s) and Time(s):</b>	Tuesday, Thursday 5:30 PM - 7:30 PM from August 26, 2019 to October 19, 2019

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### 📘 Course Information

#### Catalog Description

Functional processes of the human body with emphasis on regulatory mechanisms. Concurrent enrollment in BIOL 326L is recommended.

**Prerequisites:** C or better in BIOL 110, BIOL 223, and CHEM 109 or CHEM 110.

#### Additional Notes

**Attendance Policy:** All students are expected to attend each class period as assigned. When you miss class, you miss important announcements, directions and assignments. If you come in late, the same applies. I will not interrupt class to get you caught up.

**Late Work:** I usually do not accept late work. I do understand that there are circumstances that will allow you to turn your work in late. These will be assessed by me and given at my discretion. If there is an in-class assignment that you miss (except approved absences) you will not be allowed to make those up.

**Absences:** Excused absences are reserved for special circumstances, like a death in your family. You must notify me ASAP about the situation. Unexcused absences are for things such as feeling too tired to come to class. Missing a week of class may make it impossible for you to successfully complete this course.

**Cheating or plagiarism:** Your work must be your own work. Not the work of your classmate, the internet or friends. If you are caught cheating, you will get an automatic zero for that assignment and I will contact the appropriate persons at the college.

**Exams:** All exam dates are solid dates, meaning that they are not moved around. When we have exams, you need to be in class at the time of class and make ups are rarely given. If you miss an exam you must notify me PRIOR to the class period and I will decide if you will be allowed to make it up.

### 📖 Textbooks

As part of Truition<sup>SM</sup>, students will receive their course materials automatically as described below.

 David Shier. (2019). *Holes Human Anatomy and Physiology with access to Connect* (15th). McGraw-Hill. eText

## Bookstore Information

Visit <https://www.ccis.edu/bookstore.aspx> for details.

### eText Information

If a course uses an eText, (see textbook information above) the book will be available directly in Desire2Learn (D2L) seven days before the session begins, if registered for courses prior to that date. Upon first login to VitalSource, students should use their CougarMail email address; alternate email addresses cannot be used. More information about how to use the VitalSource platform, including offline access to eTexts, can be found in D2L.

### Physical Course Materials Information

Students enrolled in courses that require physical materials will receive these materials automatically at the shipping address on file with Columbia College. Delivery date of physical materials is dependent on registration date and shipping location. Please refer to confirmation emails sent from Columbia College for more details on shipping status.

**Returns:** Students who drop a class are responsible for returning any physical course materials that were shipped. To initiate a return, visit [Ingram Returns](#) to generate a pre-paid return label. Materials from dropped courses must be returned within 30-days of receipt. **Failure to return physical items from a dropped course will result in a charge to the student account for all unreturned items.**

**Note:** Students who opt-out of having their books provided as part of Truition<sup>SM</sup> are responsible for purchasing their own course materials.

## Technology Requirements

### **THIS IS A TECHNOLOGY-ENRICHED COURSE WHICH COMBINES IN-SEAT INSTRUCTION WITH ONLINE LEARNING.**

Participation in this course will require the basic technology for all classes at Columbia College:

- A computer with reliable internet access
- A web browser
- Acrobat Reader
- Microsoft Office or another word processor such as Open Office

For more information, see [technical requirements](#).

## Course Learning Outcomes

- Describe the role and importance of homeostasis in physiology.
- Demonstrate an understanding of the chemical composition of the body.
- Explain the electrical/chemical activity of neurons and neurotransmitters.
- Describe the functioning of the autonomic nervous system.
- Describe functional aspects of the senses.
- Explain the functions of hormones.
- Describe the mechanism of muscle contractions.
- Summarize the cardiac cycle and electrical activity of the heart.
- Describe how and why cardiac output, blood flow and blood pressure vary.
- Summarize the mechanisms used by the immune system.
- Describe gas exchange in the lungs and body.
- Describe the effects of environmental changes on respiratory function.
- Describe renal control of electrolytes and acid-base balance.
- Describe neural and endocrine regulation of the digestive system.
- Summarize the ways energy metabolism is regulated.
- Describe how reproduction is regulated by the endocrine system.

 Grading

Grading Scale

Grade	Points	Percent
A	900 - 1000	90-100%
B	800 - 899	80-89%
C	700 - 799	70-79%
D	600 - 699	60-69%
F	0 - 599	0-59%

Grade Weights

Assignment Category	Points	Percent
Exams	400	40%
Case Studies	300	30%
Assignments	300	30%
<b>Total</b>	<b>1000</b>	<b>100%</b>

 Schedule of Due Dates

Week 1

Assignment	Points	Due
Assignment Chapter 1 Due	14	Thursday

Week 2

Assignment	Points	Due
Assignment Chapter 2 Due	14	Tuesday
Assignment Chapter 3 Due	14	Tuesday
Assignment Chapter 4 Due	14	Thursday
Assignment Chapter 6 Due	14	Thursday
Exam 1	100	Thursday

Week 3

Assignment	Points	Due
Assignment CH7 Due	14	Tuesday
Assignment CH8 Due	14	Thursday

Week 4

Assignment	Points	Due
Assignment CH9 Due	14	Tuesday
Assignment CH10 Due	13	Tuesday
Assignment CH11 Due	13	Thursday
Case Study 1	200	Thursday
Exam 2	100	Tuesday

Week 5

Assignment	Points	Due
Assignment CH12 Due	13	Tuesday
Assignment CH13 Due	13	Thursday
Assignment CH14 Due	13	Thursday

Week 6

Assignment	Points	Due
Assignment CH15 Due	13	Tuesday

Assignment	Points	Due Day
CH16 Due		
Assignment CH17 Due	13	Thursday
Case Study 2 Due	100	Thursday
Exam 3	100	Tuesday
<b>Week 7</b>		
Assignment	Points	Due
Assignment CH18 Due	12	Tuesday
Assignment CH19 Due	12	Tuesday
Assignment CH20 Due	12	Thursday
Assignment CH21 Due	12	Thursday
Assignment CH22 Due	12	Thursday
<b>Week 8</b>		
Assignment	Points	Due
Assignment CH23 Due	12	Tuesday
Assignment CH24 Due	12	Thursday
Exam 4	100	Thursday
<b>Total Points: 1000</b>		

## Assignment Overview

### Assignments

All assignments for each chapter are specifically selected to focus your study skills to application of knowledge questions. The questions for each chapter are the 7 outcome questions at the end of each chapter.

Case studies are designed to help you learn and apply the information you are learning.

### Examinations

There are four major exams in this course and each is worth 100 points.

## Course Outline

Click on each week to view details about the activities scheduled for that week.

### Week 1: Level of Organization

#### Readings

Tuesday: Chapter 1: Introduction to Human Anatomy and Physiology. (1.4,1.5,1.7).

Chapter 2: Chemical Basis of Life. (2.1 - 2.3).

Thursday: Chapter 2: Chemical Basis of Life Continued.

Chapter 3: Chemical Basis of Life. (3.1 - 3.7).

#### Assignments

Tuesday: Chapter 1: Outcomes Questions 1,2,3,4,5,6,7.

Tuesday and Thursday: Chapter 2: Outcomes Questions 1,2,3,4,5,6,7.

Thursday: Chapter 3: Outcomes Questions 1,2,3,4,5,6,7.

### **Assignment Chapter 1 Due**

Chapter 1: Outcomes Questions 1,2,3,4,5,6,7.

## **Week 2: Levels of Organization**

### **Readings**

Tuesday: Chapter 4: Cellular Metabolism. (4.1 - 4.6).

Chapter 6: Integumentary System. (6.1 - 6.5).

Thursday: Chapter 7 Skeletal System. (7.3, 7.4).

### **Assignments**

Chapter 4: Outcomes Questions: 1,2,3,4,5,6,7.

Chapter 6: Outcomes Questions: 1,2,3,4,5,6,7.

Chapter 7: Outcomes Questions: 1,2,3,4,5,6,7.

### **Assignment Chapter 2 Due**

Chapter 2: Outcomes Questions: 1,2,3,4,5,6,7.

### **Assignment Chapter 3 Due**

Chapter 3: Outcomes Questions: 1,2,3,4,5,6,7.

### **Assignment Chapter 4 Due**

Chapter 4: Outcomes Questions: 1,2,3,4,5,6,7.

### **Assignment Chapter 6 Due**

Chapter 6: Outcomes Questions: 1,2,3,4,5,6,7.

### **Exam 1**

Exam 1 (Chapters 1 - 4, 6).

## **Week 3: Integration and Coordination**

### **Readings**

Tuesday: Chapter 8: Joints of the Skeletal System. (8.1 - 8.2, 8.4).

Thursday: Chapter 9: Muscle System. (9.2 - 9.3, 9.8).

Thursday: Chapter 10: Nervous System I: Basic Structure and Function. (10.4 - 10.8).

### **Assignments**

Tuesday: CH8: Outcomes Questions: 1,2,3,4,5,6,7.

Tuesday: Case Study 1.

Thursday: CH9: Outcomes Questions: 1,2,3,4,5,6,7.

Thursday: CH10: Outcomes Questions: 1,2,3,4,5,6,7.

### **Assignment CH7 Due**

CH7: Outcomes Questions: 1,2,3,4,5,6,7.

### **Assignment CH8 Due**

Chapter 8: Outcomes Questions: 1,2,3,4,5,6,7.

## Week 4: Integration and Coordination

### Readings

Tuesday: Chapter 11: Nervous System II: Divisions of the Nervous System. (11.1, 11.7 - 11.8).

Thursday: Chapter 12: Nervous System III: Senses. (14.1 - 14.5).

### Assignments

Tuesday: Chapter 11: Outcomes Questions: 1,2,3,4,5,6,7.

Thursday: Chapter 12: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH9 Due

Chapter 9: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH10 Due

Chapter 10: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH11 Due

Chapter 11: Outcomes Questions: 1,2,3,4,5,6,7.

### Case Study 1

This is a group project.

### Exam 2

Covers Chapters 7 - 11.

## Week 5: Transport

### Readings

Tuesday: Chapter 13: Endocrine System. (13.1 - 13.3, 13.9 - 13.11).

Tuesday: Chapter 14: Blood. (14.1 - 14.5).

Thursday: Chapter 15: Cardiovascular System. (15.1, 15.4, 15.8).

Thursday: Chapter 16: Lymphatic System and Immunity. (16.1 - 16.5).

### Assignments

Tuesday: Chapter 13: Outcomes Questions 1,2,3,4,5,6,7.

Tuesday: Chapter 14: Outcomes Questions 1,2,3,4,5,6,7.

Tuesday: Case Study 2.

Thursday: Chapter 15: Cardiovascular System. (15.1, 15.4, 15.8).

Thursday: Chapter 16: Lymphatic System and Immunity. (16.1 - 16.5).

### Assignment CH12 Due

Chapter 12: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH13 Due

Chapter 13: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH14 Due

Chapter 14: Outcomes Questions: 1,2,3,4,5,6,7.

## Week 6: Absorption and Excretion

### Readings

Tuesday: Chapter 17: Digestive System. (17.2 - 17.10).

Thursday: Chapter 18: Nutrition and Metabolism. (18.1 - 18.9).

Thursday: Chapter 19: Respiratory System. (19.3 - 19.7).

### Assignments

Tuesday: CH17: Outcomes Questions: 1,2,3,4,5,6,7.

Thursday: CH18: Outcomes Questions: 1,2,3,4,5,6,7.

Thursday: CH19: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH15 Due

Chapter 15: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH16 Due

Chapter 16: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH17 Due

Chapter 17: Outcomes Questions: 1,2,3,4,5,6,7.

### Case Study 2 Due

#### Exam 3

Covers chapters 12-17).

## Week 7: Absorption and Excretion

### Readings

Tuesday: Chapter : 20: Urinary System. (20.3 - 20.5).

Tuesday: Chapter 21: Water and Electrolyte and Acid Base Balance. (21.1- 21.7).

Tuesday: Chapter 22: Reproduce System. (22.1, 22.3 - 22.8).

Thursday: Chapter 23: Pregnancy, Growth and Development. (23.1 - 23.4).

### Assignments

Tuesday: Chapter 20: Outcomes Questions: 1,2,3,4,5,6,7.

Tuesday: Chapter 21: Outcomes Questions: 1,2,3,4,5,6,7.

Tuesday: Chapter 22: Outcomes Questions: 1,2,3,4,5,6,7.

Thursday: Chapter 23: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH18 Due

Chapter 18: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH19 Due

Chapter 19: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH20 Due

Chapter 20: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH21 Due

Chapter 21: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH22 Due

Chapter 22: Outcomes Questions: 1,2,3,4,5,6,7.

## Week 8: The Human Life Experience

### Readings

Tuesday: Chapter 24: Genetics and Genomes. (24.1 - 24.).

### Assignments

Tuesday: Chapter 24: Outcomes Questions: 1,2,3,4,5,6,7.

### Assignment CH23 Due

Chapter 23: Outcomes Questions 1,2,3,4,5,6,7.

### Assignment CH24 Due

Chapter 24: Outcomes Questions: 1,2,3,4,5,6,7.

### Exam 4

Covers chapters 18-24.

## + Additional Resources

Online databases are available at [library.ccis.edu](http://library.ccis.edu). You may access them using your CougarTrack login and password when prompted.

### Technical Support

If you have problems accessing the course or posting your assignments, contact your instructor, the Columbia College Technology Solutions Center, or the D2L Helpdesk for assistance. If you have technical problems with the VitalSource eText reader, please contact VitalSource. Contact information is also available within the online course environment.

- Columbia College Technology Solutions Center: [CCHelpDesk@ccis.edu](mailto:CCHelpDesk@ccis.edu), 800-231-2391 ex. 4357
- D2L Helpdesk: [helpdesk@d2l.com](mailto:helpdesk@d2l.com), 877-325-7778
- VitalSource: [support@vitalsource.com](mailto:support@vitalsource.com), 1-855-200-4146

### Online Tutoring

Smarthinking is a free online tutoring service available to all Columbia College students. Smarthinking provides real-time online tutoring and homework help for Math, English, and Writing. Smarthinking also provides access to live tutorials in writing and math, as well as a full range of study resources, including writing manuals, sample problems, and study skills manuals. You can access the service from wherever you have a connection to the Internet. I encourage you to take advantage of this free service provided by the college.

Access Smarthinking through CougarTrack at [Students -> Academics -> Resources](#).

## ! Columbia College Policies and Procedures

The policies set forth in the [Policy Library](#) are the current official versions of College policies and supersede and replace any other existing or conflicting policies covering the same subject matter. For more information on policies applicable to students, see [Student Policies](#). For more information on policies applicable to the entire Columbia College community, see [College-Wide Policies](#).

Students are expected to read and abide by the College policies. Policies of particular interest to students include, but not limited to the following:

- Graduate Grading Policy
- Undergraduate Grading Policy
- Registration Policy and Procedures
- Withdrawal Policy
- Alcohol and Other Drugs Policy



- Family Educational Rights and Privacy Act (FERPA)

### Additional Policies:

#### Academic Integrity and Plagiarism

Academic integrity is a cumulative process that begins with the first college learning opportunity. Students are responsible for knowing and abiding by the [Academic Integrity Policy and Procedures](#) and may not use ignorance of either as an excuse for academic misconduct. Additionally, all required papers may be submitted for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers may be included in the Turnitin.com reference database for the purpose of detecting plagiarism. This service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

#### Disability Resources

If you have a disability that requires an accommodation, please speak with the instructor and consult the [Student Accessibility Resources](#) office. Student Accessibility Resources staff will determine appropriate accommodations and will work with your instructor to make sure these are available to you. To find additional information, see our [ADA and Section 504 Policy for Students](#).

#### Notice of Non-Discrimination and Equal Opportunity:

The College has a process through which students, faculty, staff and community members who have experienced or witnessed incidents of discrimination, harassment, or retaliation on the basis of protected status, can report their experiences to a College official. For more information, see our [Non-Discrimination and Equal Opportunity Policy and Complaint Resolution Procedure](#).

#### Title IX and Sexual Misconduct

The College is committed to addressing the issues of discrimination, harassment and sexual misconduct in the educational and workplace landscape and will continue to modify policies, procedures and prevention efforts as needed. For more information, see the College's [Title IX and Sexual Misconduct Policy](#).

### Course Policies and Procedures:

#### Attendance Policy

Columbia College students are expected to attend all classes and laboratory periods for which they are enrolled.

For classes with an online component, attendance for a week includes submitting any assigned online activity. Assigned activities are scheduled prior to the course commencing. Assigned activity due dates are subject to change based on actual course progression and will be adjusted as necessary. Attendance for the week is based upon the date work is submitted. A class week is defined as the period of time between Monday and Sunday (except for week 8, when the work and the course will end at 11:59 PM Central Time on Saturday.) The course and system deadlines are based on the Central Time Zone.

Students are directly responsible to instructors for class attendance and work missed during an absence for any cause. If absences jeopardize progress in a course, the College reserves the right to drop or withdraw students from classes. For additional information, see the Administrative Withdrawal for Non-Attendance heading in the [Withdrawal Policy](#).

#### CougarMail

All students are provided a CougarMail account when they enroll in classes at Columbia College. You are responsible for monitoring email from that account for important messages from the College and from your instructor.

Students should use email for private messages to the instructor and other students. The class discussions are for public messages so the class members can each see what others have to say about any given topic and respond.

#### Late Assignment Policy

All classes rely on participation and a commitment to your instructor and your classmates to regularly engage in the reading, discussion and writing assignments. You must keep up with the schedule of reading and writing to successfully complete the class.

No late assignments will be accepted without the prior approval of the instructor.

Acceptance of a late assignment is at the discretion of the instructor.

Make-up examinations may be authorized for students who miss regularly-scheduled examinations due to circumstances beyond their control. Make-up examinations must be administered as soon as possible after the regularly scheduled examination period and must be administered in a controlled environment.

#### Student Conduct

All Columbia College students, whether enrolled in a land-based or online course, are responsible for behaving in a manner consistent with Columbia College's [Student Conduct Code](#) and [Acceptable Computing Use Policy](#). Students violating these policies or any other College policy will be referred to the office of Student Affairs and/or the office of Academic Affairs for possible

disciplinary action. The Student Code of Conduct, the **Student Behavioral Misconduct Policy and Procedures**, and the Acceptable Computing Use Policy can be found in the Policy Library at [ccis.edu/policies](https://ccis.edu/policies). The adjunct faculty member maintains the right to manage a positive learning environment all students must adhere to the conventions of online etiquette when enrolled in a course with an online component.