

Division of Earth, Life & Natural Sciences Biology Department

https://www.hccs.edu/programs/areas-of-study/science-technology-engineering-math/biology/

BIOL. 2101: Anatomy And Physiology 1 | Lab | #10278

Spring 2020 | 16 Weeks (1.21.2020-5.17.2020)

In-Person | Central College (CE) **LHSB 312** 1300 Holman Street, Houston, TX, 77004. | MW 8:00-9:20 a.m.

1 Credit Hours | 48 hours per semester

Instructor Contact Information

Instructor: Pauline Ward, Ph.D. Office Phone: 713-718-2538

Office: CE, Room LHSB 401 Office Hours: M & W 11 a.m-12:30 p.m. HCC Email: pauline.ward@hccs.edu Office Location: Learning Hub, 4th floor

Please feel free to contact me concerning any problems that you are experiencing in this course. Your performance in my class is very important to me. I am available to hear the concerns and just to discuss course topics.

Instructor's Preferred Method of Contact

Please use the Eagle online/Canvas messaging system. Only in the event that Canvas is offline, please email me directly at Pauline.ward@hccs.edu. I only respond to HCC email addresses (not Gmail, etc.). I will respond to emails within 24-48 hours Mondaythrough Friday; I will reply to weekend messages during the following week.

What's Exciting About This Course

You will learn so much about your life and living organisms. Do you know how the brain works? How memory works? Why the bones can break? How muscles work? How the heart sends blood to all the body structures with the oxygen the lungs bring in? The course will look at how and why the body works the way it does. What happens? Anatomy and physiology is the study of life and living organisms. But what exactly does being ALIVE mean? What qualities make one a living organism? How do we stay alive? Anatomy and Physiology are the opposite sides of the same biological coin.

Anatomy, provides a map of how a body is put together, human or animals.

Physiology is the instruction manual that explains how this miraculous machine works. The information in this course will enable you to understand the life and living plus diseases and effects, as well as develop new habits to increase your personal success. You will use what you learn in this course; your knowledge will come in handy later in the course of your professional career.

My Personal Welcome

Welcome! —I'm delighted that you have chosen this course. Biology is an exciting field of study and I look forward to working with each of you this semester as you conquer the learning objectives for this course. By taking an active part in your education, you will make your academic experience much more rewarding and exciting!!

Prerequisites and/or Co-Requisites

Anatomy and Physiology requires Math 0106 or higher placement by testing, must be placed in college level reading.

Co-requisites: None.

The recommendations for this course include College Level Reading as determined by SAT, ACT, TASP or successfully passing ENGL0305 with "C" or better. Biology 1406 (General Biology) is strongly recommended.

Canvas Learning Management System

All Biology sections utilize <u>Canvas</u> (<u>https://eagleonline.hccs.edu</u>) to supplement in-class assignments, exams, and activities.

Open Lab Locations

<u>HCCS Open Computer Lab locations</u> may be used to access the Internet and Canvas. **USE FIREFOX OR CHROME AS THE INTERNET BROWSER**.

HCC Online Information and Policies

For online/hybrid students. As an online /hybrid student, you are responsible for all information/requirements provided by the online college. Here is the link to information about HCC Online classes http://www.hccs.edu/online/. This includes the mandatory online course prior to start of class.

Scoring Rubrics, Sample Assignments, etc.

When applicable, look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course.

https://eagleonline.hccs.edu/login/ldap

Instructional Materials

Required Resources

Lab Manual: Human Anatomy and Physiology, Hayden-McNeil 8th edition. Jyoti Wagle & et-al

Suggested Resources



HCCS Biology Lab Study Pages

Click here to access Biology lab study pages online.

Other Instructional Resources

Tutoring

HCC provides free, confidential, and convenient academic support, including writing critiques, to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the HCC Tutoring Services website for services provided.

Libraries

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at http://library.hccs.edu.

Supplementary Instruction

Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at http://www.hccs.edu/resources-for/current-students/supplemental-instruction/.

Course Overview

A course of study covering the structure and function of human cells, tissues and organ systems including the integumentary, skeletal, muscular and nervous systems. It is a Core Curriculum Course.

This course is intended for students majoring in one of the physical sciences or life sciences, engineering, or for students who are pursuing pre-professional programs in medicine, dentistry, pharmacy, veterinary medicine, or other health programs. The course is also beneficial to students who are preparing themselves for higher-level science courses in their respective curricula.

Core Curriculum Obiectives (CCOs)

BIOL. 2101 satisfies the Life science requirement in the HCCS core curriculum. The HCCS Biology Discipline Committee has specified that the course address the following core objectives:

- **Critical Thinking**: Students will demonstrate the ability to engage in inquiry and analysis, evaluation and synthesis of information, and creative thinking by completing a written assignment such as a book report, research paper, or essay.
- **Communication Skills**: Students will demonstrate effective development, interpretation and expression of ideas through written, oral, and visual communication by completing a written assignment such as a book report, research paper, or essay.
- Quantitative and Empirical Literacy: Students will demonstrate the ability to draw
 conclusions based on the systematic analysis of topics using observation, experiment,
 and/or numerical skills by completing textbook reading assignments, completing
 assignments, and answering questions on quizzes and exams that pertain to Course
 Student Learning Outcome #2 below.
- **Social Responsibility**: Students will demonstrate cultural self-awareness, intercultural competency, civil knowledge, and the ability to engage effectively in regional, national, and global communities by completing textbook reading assignments, completing assignments, and answering questions on quizzes and exams that pertain to Course Student Learning Outcome #4 below.

Program Student Learning Outcomes (PSLOs)

- 1. Will display an understanding of biological systems and evolutionary processes spanning all ranges of biological complexity, including atoms, molecules, genes, cells, and organisms.
- 2. Will integrate factual and conceptual information into an understanding of scientific data by written, oral and/or visual communication. (This may include successful completion of a course-specific research project or a case study module).
- **3.** Will demonstrate proficiency and safe practices in the use of laboratory equipment and basic laboratory techniques.
- **4.** Will apply principles of the scientific method to problems in biology in the collection, recording, quantitative measurement, analysis and reporting of scientific data.

Course Student Learning Outcomes (CSLOs)

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

Completion of the specific course Student Learning Outcomes listed below does NOT and will NOT guarantee the student any specific final course grade at the end of the semester!

- 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.

Learning Objectives

- 1. Consistently able to demonstrate understanding and application of feedback loops on homeostasis without the instructor's help.
- 2. Consistently able to explain membrane transport and determine the outcome of scenarios concerning membrane transport
- 3. Always able to describe muscle structure and use that knowledge to explain muscle function
- 4. Always able to apply knowledge of the structure of the skeletal system to its functions.
- 5. Consistently able to demonstrate knowledge of interactions involving changes in membrane polarity without the instructor's help.
- 6. Consistently able to demonstrate all parts, functions, and steps involved in a reflex arc.
- 7. Consistently prepared and able to demonstrate skills using the body system models and laboratory techniques at the classroom standards. Consistently able to find and focus the specimen on the microscope slide without the instructor's help.
- 8. Consistently uses online tools to prepare for class, always ready for classroom discussions and instructor's Q&A sessions, completes all online quizzes prior to due date.

Student Success

Academic standards require a minimum of 3 study hours for every contact hour; meaning for a class that meets 3 hours per week, you need to budget and set aside a minimum of 9 hours each week to study and prep for your course success. Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Timely completion of assignments
- Participating in class activities
- Successful exam performance, including the mandatory final

There is no short cut for success in this course; it requires reading and studying the material using the course objectives as a guide.

Instructor and Student Responsibilities

As your Instructor, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar that will include a description of any special projects or assignments
- Arrange to meet with individual students before and after class as required

As a student, it is your responsibility to:

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Attain a raw score of at least 50% on the departmental final exam
- Be aware of and comply with academic honesty policies in the <u>HCCS Student Handbook</u>

Assignments, Exams, and Activities

Lab Exams (60%).

There will be a total of three Lab Practical Exams (20% for each exam). Stations will be setup for the various labs. Questions will mostly relate to the identification of structures on models, slides, diagrams etc. AND to describe the function of these structures. Note: No multiple choice questions or word banks will be used for Lab Practical Exams. NO MAKE UP FOR LAB EXAMS.

Post-lab Quizzes (10%).

Online Post-lab Quizzes (10% cumulative score) will be available on our course on Canvas. Quizzes are due at 10.00 PM on the dates outlined in your syllabus. No extended deadlines for missed quizzes.

Lab reports (10%)

Lab reports are due at the start of class *after* the lab was performed. Individuality will be checked for throughout, including the critical thinking questions. The reports need to be completed independently; copied or partly copied reports will result in a grade of zero for the students involved, including the student(s) who shares the lab reports. The Instructor will also collect the lab manuals on the dates outlined on the syllabus for grading.

Lab performance (10%)

You are expected to attend the entire lab time and to be actively engaged in "hands on" activities during this time. You must contribute fully to the group lab work and assigned class activities. Please note: Lab time is NOT time to fill out your lab reports; these must be completed outside the laboratory time. Lab time is your chance to get familiar with the slides, models, etc. The checklist for each lab will serve as a guide for the material to be mastered in each lab.

Group Project (5%)

Students will work in groups to complete a project. More details given in class and on Canvas.

PreLab reports (5%)

These must be completed <u>independently</u> on the day <u>prior</u> to the corresponding lab session and will be checked at the start of the class. Zero marks for plagiarized reports.

Grading Formula

GRADINGLab Exams (3)20 % each for a total of 60 %Post-Lab Quizzes10%Lab reports10%Lab Performance10%Group Project5%PreLab reports5%TOTAL100%

A = 100 - 90;	.4 points per semester hour
B = 89 - 80	3 points per semester hour
C = 79 - 70	2 points per semester hour
D = 69 - 60	.1 point per semester hour
59 and below = F	0 points per semester hour

Incomplete Policy:

In this course, the purposes of the "I" (incomplete) grade is for students who are caught up and passing at the student withdrawal deadline, and then have a medical or other problem that prevents them from completing the course. If you are not passing at the student withdrawal deadline, <u>you should drop yourself</u> from the course, or you will likely earn an "F." An incomplete "I" grade will be given only if all of the following conditions are met:

- ✓ You have earned at least 85% of the available points by the date that the "I" grade is requested.
- ✓ You can provide documentation showing why you should earn an incomplete, such as a doctor's note, etc.
- ✓ You must be passing with a grade of "C" or better.
- ✓ You must request the incomplete in writing
- ✓ In all cases, the instructor reserves the right to decline a student's request to receive a grade of Incomplete.

HCC Grading Scale can be found on this site under Academic Information: http://www.hccs.edu/resources-for/current-students/student-handbook/

Course Calendar

Week	SCHEDULE
1. Jan 23	Lab 1: Safety and procedures & Orientation
1. Jan 25	Lab 2: Human Body organization
2.Jan 27	Lab 3: Anatomical Terminology
2.3411 27	Lab 4: Microscopes and the Cell
	Sunday Feb 2 10.00 pm: Online Quiz-Lab 3 & 4
3. Feb 3	Lab 5: The Tissues
4. Feb 10	Lab 5: The Tissues-cont.
	Lab 6: The Integumentary System
	Sunday Feb 16 10.00 pm: Online Quiz-Lab 5&6
5.Feb 17	Monday Feb 17: President's Day No Class
	Lab Exam #1 Review/Catch up
6. Feb 24	Monday Feb 23 LAB MANUALS DUE FOR GRADING AT START OF CLASS
	Monday, Feb 24 Lab Exam #1 (1-6)
	Lab 7: The Skeletal System: Introduction
	Sunday Mar 1 10.00 pm: Online Quiz-Lab 7
7. Mar 2	Lab 8: The Skeletal System: Axial
	Sunday Mar 8 10.00 pm: Online Quiz-Lab 8
8. Mar 9	Lab 9: The Skeletal System: Appendicular
	Sunday Mar 15 10.00 pm: Online Quiz-Lab 9
9. Mar 16	SPRING BREAK: No Class
10. Mar 23	Lab 10: Joints
	Sunday Mar 29 10.00 pm: Online Quiz-Lab 10
11. Mar 30	Lab Exam #2 Review/Catch up
	Wednesday Apr 1 LAB MANUALS DUE FOR GRADING AT START OF CLASS
	Wednesday, Apr 1 Lab Exam #2 (7-10)
12. Apr 6	Lab 11: Muscle of the body
	Sunday Apr 12 10.00 pm: Online Quiz-Lab 11
13. Apr 13	Lab 12: Brain & Cranial Nerves
	Sunday Apr 19 10.00 pm: Online Quiz-Lab 12
14. Apr 20	Lab 13: Spinal Cord, Spinal nerves, Reflexes
	Sunday Apr 26 10.00 pm: Online Quiz-Lab 13
15. Apr 27	Lab 14: General senses
	Lab 15: Special senses
	Sunday May 3 10.00 pm: Online Quiz-Lab 14
16. May 4	Lab 15: Special senses-cont
	Lab Exam #3 Review-Catch up
	Sunday May 10 10.00 pm: Online Quiz-Lab 15
17. May 11	Monday, May 11 No Class
	Wednesday May 13 LAB MANUALS DUE FOR GRADING AT START OF CLASS
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Syllabus Modifications

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

Instructor's Practices and Procedures

Missed Assignments

- No Drop Exams. No Makeups for Exams.
- No extensions on deadlines for quizzes

Academic Integrity

You will be required to sign an academic integrity commitment and return to the Instructor by the first week of class. This form will be provided on the first day of class.

This instructor is committed to a high standard of academic integrity in the academic community. In becoming a part of the academic community, students are responsible for honesty and independent effort. Failure to uphold these standards includes, but is not limited to, the following: plagiarizing written work or projects, cheating on exams or assignments, collusion on an exam or project, and misrepresentation of credentials or prerequisites when registering for a course. Cheating includes looking at or copying from another student's exam, orally communicating or receiving answers during an exam, having another person take an exam or complete a project or assignment, using unauthorized notes, texts, or other materials for an exam, and obtaining or distributing an unauthorized copy of an exam or any part of an exam. Plagiarism means passing off as his/her own the ideas or writings of another (that is, without giving proper credit by documenting sources). Plagiarism includes submitting a paper, report, or project that someone else has prepared, in whole or in part. Collusion is inappropriately collaborating on assignments designed to be completed independently. These definitions are not exhaustive.

When there is clear evidence of cheating, plagiarism, collusion, or misrepresentation, disciplinary action may include but is not limited to requiring you to retake or resubmit an exam or assignment, assigning a grade of zero or "F" for an exam or assignment; or assigning a grade of "F" for the course. Additional sanctions including being withdrawn from the course, program or expelled from school may be imposed on a students who violate the standards of academic integrity.

Scholastic Dishonesty will result in a referral to the Dean of Student Services. See the link below for details.

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance):

http://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/

Attendance Procedures

Attendance is mandated by the state. You are expected to attend the **entirety of the scheduled classes**. You are also responsible for materials covered during your absences. Instructors may be willing to consult with you for make-up assignments, but it is your responsibility to contact the instructor. Class attendance is monitored daily. **It is your responsibility to drop a course for nonattendance (Apr 6 by 4.30 pm**). The instructor also has the authority to drop you for excessive absences. You may be dropped from a

course after accumulating absences in excess of 12.5 percent of the total hours of instruction (lecture and lab). For example:

- For a 3 credit-hour lecture class meeting 3 hours per week (48 hours of instruction), you can be dropped after 6 hours of absence.
- Departments and programs governed by accreditation or certification standards may have different attendance policies. Administrative drops are at the discretion of the instructor. Failure to withdraw officially can result in a grade of "F" or "FX" in the course.
- **Students who stopped attending class**: The Department of Education now requires that we make a distinction between an "earned" grade of "F" (i.e. for poor performance) and a grade of "F" due to a lack of attendance. To make that distinction, we have created a new grade, "FX" for failure due to lack of attendance. Faculty will not be allowed the option of submitting a grade change form changing the grade of FX (or F) to W, if the student stopped attending class. Failure to alert instructor of missed exams and lack of attendance will result in this FX grade option.

Student Conduct

Students are expected to conduct themselves as adults. This includes courteous and respectful behavior towards instructor and classmates. Disruptive behavior or any behavior that interferes with any educational activity being performed by the instructor will not be allowed. Additionally, no student may interfere with his/her fellow students' right to pursue their academic goals to the fullest in an atmosphere appropriate to a community of scholars. Disruptive behavior may result in removal from the class.

Instructor's Course-Specific Information

Course material handed out in class or posted online is for your personal use only and it is not permissible to share or distribute any of this material without my prior consent.

It is your responsibility to meet the course deadlines. Please take note of exam, quizzes and assignment deadlines. It is also your responsibility to check CANVAS <u>daily</u> for any new announcements or updates. You can set up in your CANVAS course settings to have notifications of new announcements sent to your phone or email.

Electronic Devices

Cellphone, Laptop, Camera, Recording and/or other Electronic Devices are prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs, unless directed otherwise by the Instructor.

If your work or family situation requires that you be available via phone, your phone can be on vibrate mode and you can take the call during a break or you can exit the class to review the call. Notify your friends, family, employers, and anyone else who regularly contacts you that you will be in class and that you should be contacted only when necessary. The taking of calls during class is not only disruptive but it is also discourteous to classmates and the instructor.

STUDENTS ARE NOT PERMITTED TO HAVE ELECTRONIC DEVICES DURING EXAMS All phones, watches or other electronic devises must be placed at the top of the classroom

during any exams and testing. Students found with a devise on or near their presence during an exam (even if not looking at it actively at that time) will be considered as having cheated in that exam. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodations.

Biology Program Information

The Biology area of study here at HCC covers the smallest and simplest organisms (microbiology) to the largest and most complex organisms (human anatomy and physiology, zoology, botany).

AWARD TYPES: Associate in Science

AREA OF STUDY: Science, Technology, Engineering & Math

Please visit link: https://www.hccs.edu/programs/areas-of-study/science-technology-

engineering--math/biology/

HCC Policies

Here's the link to the HCC Student Handbook http://www.hccs.edu/resources-for/current-students/student-handbook/ In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- disAbility Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)
- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Student Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Student Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

EGLS³

The EGLS³ (Evaluation for Greater Learning Student Survey System) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS³ surveys are only available for the Fall and Spring semesters. EGLS3 surveys are not offered during the Summer semester due to logistical constraints.

http://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/

Campus Carry Link

Here's the link to the HCC information about Campus Carry: http://www.hccs.edu/departments/police/campus-carry/

HCC Email Policy

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go to HCC Eagle ID and activate it now. You may also use Canvas Inbox to communicate.

Housing and Food Assistance for Students

Any student who faces challenges securing their foods or housing and believes this may affect their performance in the course is urged to contact the Dean of Students at their

college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

Office of Institutional Equity

Use the link below to access the HCC Office of Institutional Equity, Inclusion, and Engagement (http://www.hccs.edu/departments/institutional-equity/)

disAbility Services

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including long and short term conditions, mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to http://www.hccs.edu/support-services/

Title IX

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross
Director EEO/Compliance
Office of Institutional Equity & Diversity
3100 Main
(713) 718-8271
Houston, TX 77266-7517 or Institutional.Equity@hccs.edu
http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/

Office of the Dean of Students

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/

Department Chair Contact Information

Dr. DaeJan Grigsby

Email: daejan.grigsby@hccs.edu

Phone: 713-718-7775