



Microbiology Lab for Non-Scien-10137

BIOL-2120

RT 2023 Section 0014 1 Credits 08/21/2023 to 12/17/2023 Modified 08/15/2023

Our Vision

Houston Community College shapes the future for all students with innovative, affordable, timely, responsive, and continuously improving educational programs and services. Partnered with the communities we serve, we take a defining role in regional economic, workforce, and social development.

<https://www.hccs.edu/about-hcc/> (<https://www.hccs.edu/about-hcc/>)

Course Meetings

Course Modality

In-Person

Meeting Days

Mondays

Meeting Times

11 a.m. - 1:50 p.m.

Meeting Location

Central Campus William H. Harmon Building (LHSB) Rm 307

Instructional Mode

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The course modality of this class is *In-Person*.

Faculty will hold class on-campus as per the assigned schedule.

Welcome and Instructor Information

Instructor: Dr. Shuo Zhang

Email: shuo.zhang@hccs.edu

Office: LHSB, Room 313

Phone: 7137186378

Website: <https://learning.hccs.edu/faculty/shuo.zhang> (<https://learning.hccs.edu/faculty/shuo.zhang>)

What's Exciting About This Course

This course is to help you develop an understanding of the biology of microorganisms including morphology, metabolism, taxonomy, culture techniques, microbial genetics, immunology, virology, mycology, parasitology and diseases. Students are given hands-on experience on handling live microorganisms using aseptic techniques and applying various staining procedures used for identification of bacteria.

My Personal Welcome

Welcome to Microbiology Lab! I hope you will enjoy this course, learn the fundamental principles of Microbiology thus set a solid foundation for your future career. As you read and wrestle with new ideas and facts that may challenge you, please feel free to set a time to visit and discussion with me. Remember, I am here to help you!

Preferred Method of Contact

HCC Email: shuo.zhang@hccs.edu. I will respond to emails within 24-48 hours Monday through Friday; I will reply to weekend messages during the following week.

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.

Course Overview

Course Description

Credits: 1 (3 lab): This course covers basics of culture and identification of bacteria and microbial ecology. This course is primarily directed at pre-nursing and other pre-allied health majors and covers basics of microbiology. Emphasis is on medical microbiology, infectious diseases, and public health.

This is a NON-MAJORS level microbiology offering. While acceptable for most nursing and allied health schools, this course may not transfer to certain healthcare related professional program schools. The student is advised to check with these schools regarding the acceptability of BIOL. 2120 before completing this course.

Requisites

Prerequisite: BIOL 1406, or BIOL 1306 + 1106; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

Must have passed BIOL 2420/2320 with a grade of C, or higher, or co-enrolled in BIOL 2320 as a co-requisite.

Department Website

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

Student Learning Outcomes and Objectives

Program Student Learning Outcomes (PSLOs) for the Biology Discipline can be found at <https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/biology/>

Course Student Learning Outcomes (CSLOs)

Upon completion of BIOL 2120, the student will be able to:

1. Use and comply with laboratory safety rules, procedures, and universal precautions.
2. Demonstrate proficient use of a compound light microscope.
3. Describe and prepare widely used stains and wet mounts, and discuss their significance in identification of microorganisms.
4. Perform basic microbiology procedures using aseptic techniques for transfer, isolation and observation of commonly encountered, clinically significant bacteria.
5. Use different types of bacterial culture media to grow, isolate, and identify microorganisms.
6. Perform basic bacterial identification procedures using biochemical tests.
7. Estimate the number of microorganisms in a sample using methods such as direct counts, viable plate counts, or

spectrophotometric measurements.

8. Demonstrate basic identification protocols based on microscopic morphology of some common fungi and parasites.

Departmental Practices and Procedures

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
- Be aware of and comply with academic honesty policies in the [HCCS Student Handbook](#)

Instructional Materials and Resources

Textbook: Benson's Microbiological Applications 15e McGraw-Hill Connect

Connect access code is required. Please follow instruction posted in Canvas to set up your account to link to Connect, McGraw Hill Education.

Please don't buy a book or Connect access code. The cost of digital course materials for this class were included in your student bill and are guaranteed to be the lowest cost available to purchase your required materials (Inclusive Access, IA). You can access homework and the e-book on the first day of class. Please follow instruction posted in Canvas to activate your Connect account.

If you prefer to use a hard copy of the book, you can purchase or rent a printed book separately. Please check more purchase options in Canvas.

You may also choose to opt-out prior to the **Official Day of Record**, but you will then be responsible for purchasing your course materials at the full retail price and access to your materials may be suspended. The opt-out process would be for students who already have an access code because they are repeating the course. If you decide to withdraw, make sure you opt-out in Canvas **before** you withdraw yourself from the course.

Students who have issues to access course materials please contact 24/7 Support via:

Web: customercare.bncollege.com; Toll Free: 1-844-9-EBOOKS (1-844-932-6657); Email: bookstorecustomercare@bncollege.com

Lockdown Browser and webcam: To maintain the rigor and the integrity of the classes, Biology department requires all students attending online classes to use a Lockdown Browser with Webcam for all exams. You need a desktop or a laptop with webcam for your exams. Smartphones and tablets will not work. Please go to our online Canvas course to download the LockDown Browser and have your webcam ready before taking the exams. More specific guidelines are posted in Canvas.

✓ Course Requirements

Assignments, Exams, and Activities

Type	Weight	Topic	Notes
Lab Exams	70%		Topics and concepts covered during labs will be included in lab exams. There will be a total of 3 exams in this course. The lowest exam score will be dropped. These lab exams make up a total of 70% of the final grade in this course with 35% each.
Pre-lab assignments	10%		Students are required to read lab introduction and complete pre-lab assignments before coming to the labs. These assignments count 10% of students' course grades.
Lab Reports	10%		Students are required to review and complete lab reports at the end of the class. These assignments count 10% of students' course grades.
Quizzes, Attendance, and Participation	10%		Attendance and participation in class are important and will be recorded. Students will be asked questions of the topics and concepts in class. Students are expected to be actively involved in hand-on lab exercises. Grade for these takes 10% of the final grade, and scores will be posted at the end of the semester.

Grading Formula

Grade	Range	Notes
A	90-100%	
B	80-90%	
C	70-80%	
D	60-70%	
F	< 60%	

* Instructor's Practices and Procedures

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, you should drop yourself 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
- You can provide documentation showing why you should earn an incomplete, such as a doctor's note,
- You must be passing with a grade of "B" or better
- You must request the incomplete in writing BEFORE Dec 8
- In all cases, the instructor reserves the right to decline a student's request to receive a grade of Incomplete.

Missed Assignments/Make-Up Policy

- Attend class regularly and participate lab exercises, be on time and stay until the period ends. **No credit will be given for missed and overdue lab reports.**
- **There will be no make-up opportunities for missed lab exams.** All lab exams will be timed. Students starting late will not be given extra time to complete an exam. Anyone starting late will have points deducted if any student has completed the exam (- 5 points times number of students who have completed the test). Students will not be allowed to leave the test before completing an exam.

- There will be NO reopening of missed online activities (quiz, discussion, pre-lab, lab report etc) in Canvas. If you miss any of these, you will get a zero. **Technical issues are not acceptable excuses for missed online activities.**
- The Instructor DOES NOT have to announce/tell you of upcoming assignments in person. This is a college course and you have to keep yourself informed by keeping up with your canvas. All assignments and quizzes will be posted with dates and the dates will be updated as the semester goes on. It is your responsibility to keep up.

Academic Integrity

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):

<https://www.hccs.edu/studentprocedures> (<https://www.hccs.edu/studentprocedures>)

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. Although it is your responsibility to drop a course for nonattendance, the instructor 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:

- Students are required to attend in-person classes and your attendance will be recorded. If you are not present on campus during the scheduled class time, your attendance will be recorded as "absence" in the PeopleSoft system. **Students who miss all in-person classes by the Official Day of Record will be automatically dropped by the system.**
- For a 3 credit-hour 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 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

I will teach you to the best of my ability. If you have any question or concern about your test results or grade, please talk with me in class or e-mail me to set a specific meeting time. You have opportunities to discuss exam grades and discuss ways to improve your study/learning strategies.

Devices

Absolutely no phone or other personal electronic devices are to be used during exams. **STUDENTS ARE NOT PERMITTED TO HANDLE CALLS DURING EXAMS.** Phones will be placed in front of the class during each exam.

Faculty Statement about 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

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

Faculty-Specific Information Regarding Canvas

This course section will use Canvas (<https://eagleonline.hccs.edu> (<https://eagleonline.hccs.edu>)) to supplement in-class assignments, exams, and activities.

HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it's built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

Social Justice Statement

Add Content Here

Houston Community College is committed to furthering the cause of social justice in our community and beyond. HCC does not discriminate on the basis of race, color, religion, sex, gender identity and expression, national origin, age, disability, sexual orientation, or veteran status. I fully support that commitment and, as such, will work to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. In this course, we share in the creation and maintenance of a positive and safe learning environment. Part of this process includes acknowledging and embracing the differences among us in order to establish and reinforce that each one of us matters. I appreciate your suggestions about how to best maintain this environment of respect. If you experience any type of discrimination, please contact me and/or the Office of Institutional Equity at 713-718-8271.

HCC Policies and Information

HCC Grading System

HCC uses the following standard grading system:

Grade	Grade Interpretation	Grade Points
A	Excellent (90-100)	4
B	Good (80-89)	3
C	Fair (70-79)	2
D	Passing (60-69), except in developmental courses.	1
F	Failing (59 and below)	0
FX	Failing due to non-attendance	0
W	Withdrawn	0
I	Incomplete	0
AUD	Audit	0
IP	In Progress. Given only in certain developmental courses. A student must re-enroll to receive credit.	0
COM	Completed. Given in non-credit and continuing education courses.	0

Link to Policies in Catalog and Student Handbook

Here's the link to the HCC Catalog and Student Handbook: <https://catalog.hccs.edu/> (<https://catalog.hccs.edu/>)

In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- Ability 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

Link to HCC Academic Integrity Statement

<https://www.hccs.edu/student-conduct> (<https://www.hccs.edu/student-conduct>) (scroll down to subsections)

Campus Carry Link

Here's the link to the HCC information about Campus Carry:

<https://www.hccs.edu/campuscarry> (<https://www.hccs.edu/campuscarry>)

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 \(https://www.hccs.edu/email\)](https://www.hccs.edu/email) and activate it now. You may also use Canvas Inbox to communicate.

Office of Institutional Equity

Use the following link to access the HCC Office of Institutional Equity, Inclusion, and Engagement: <https://www.hccs.edu/eoo> (<https://www.hccs.edu/eoo>)

Ability 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 <https://www.hccs.edu/accessibility> (<https://www.hccs.edu/accessibility>)

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 (<mailto:Institutional.Equity@hccs.edu>)

<https://www.hccs.edu/titleix> (<https://www.hccs.edu/titleix>)

Mandatory Reporters

Under Texas Education Code 51.252 (formerly known as Senate Bill 212), HCC Instructors are mandatory reporters of sexual harassment, dating violence (domestic violence), sexual assault, and stalking. All instructors are required by law to report to the College's Title IX coordinator or Deputy Title IX coordinator all reports disclosed to them relating to sexual harassment, dating violence (domestic violence), sexual assault, and stalking alleged to have been committed by or against a person who was a

student enrolled at or an employee of the institution at the time of the incident. Instructors are required by law to include all the information they know about the incident, including the name of the student(s), in the report to the College's Title IX coordinator or deputy Title IX coordinator.

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

Student 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
- Completing assignments
- Participating in class activities

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

Canvas Learning Management System

Canvas is HCC's Learning Management System (LMS), and can be accessed at the following URL:

<https://eagleonline.hccs.edu> (<https://eagleonline.hccs.edu>)

HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it's built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

HCC Online Information and Policies

Here is the link to information about HCC Online classes, which includes access to the required Online Information Class Preview for all fully online classes: <https://www.hccs.edu/online/> (<https://www.hccs.edu/online/>)

Scoring Rubrics, Sample Assignments, etc.

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/> (<https://eagleonline.hccs.edu/>)

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 during office hours, and 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
- Be aware of and comply with academic honesty policies in the [HCCS Student Handbook](https://www.hccs.edu/studenthandbook) (<https://www.hccs.edu/studenthandbook>)

EGLS3

The EGLS³ ([Evaluation for Greater Learning Student Survey System](https://www.hccs.edu/egls3) (<https://www.hccs.edu/egls3>)) 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.

<https://www.hccs.edu/egls3> (<https://www.hccs.edu/egls3>)

Housing and Food Assistance for Students

If you are experiencing any hardship related to food, shelter, mental health, or other basic needs areas, please visit the Basic Needs page for resources (<https://www.hccs.edu/cares> (<https://www.hccs.edu/cares>)). You have the option to take the Basic Needs Questionnaire and ask to be contacted by a counselor for additional assistance or support (<https://www.hccs.edu/basicneeds> (<https://www.hccs.edu/basicneeds>)). Furthermore, please notify the professor if you are comfortable doing so.

Student Resources

Tutoring

HCC provides free and convenient academic support, in a large variety of subjects, to HCC students in both an online environment and in-person on campus. Tutoring is provided by HCC personnel in order to ensure that it is appropriate. Visit the HCC Tutoring Services website for more information at <https://hccs.edu/tutoring> (<https://hccs.edu/tutoring>).

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 <https://library.hccs.edu> (<https://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 <https://www.hccs.edu/supplemental-instruction> (<https://www.hccs.edu/supplemental-instruction>)

Resources for Students:

<https://www.hccs.edu/covid19students> (<https://www.hccs.edu/covid19students>)

Basic Needs Resources:

<https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/> (<https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/>)

Student Basic Needs Application:

<https://www.hccs.edu/basicneeds> (<https://www.hccs.edu/basicneeds>)

COVID-19

Here's the link to the HCC information about COVID-19:

<https://www.hccs.edu/covid-19> (<https://www.hccs.edu/covid-19>)

Sensitive or Mature Course Content

In this college-level course, we may occasionally discuss sensitive or mature content. All members of the classroom environment, from your instructor to your fellow students, are expected to handle potentially controversial subjects with respect and consideration for one another's varied experiences and values.

Instructional Modalities

In-Person (P)

Safe, face-to-face course with scheduled dates and times

Online on a Schedule (WS)

Fully online course with virtual meetings at scheduled dates and times

Online Anytime (WW)

Traditional online course without scheduled meetings

Hybrid (H)

Course that meets safely 50% face-to-face and 50% virtually

Hybrid Lab (HL)

Lab class that meets safely 50% face-to-face and 50% virtually

Copyright Statement

In order to uphold the integrity of the academic environment and protect and foster a cohesive learning environment for all, HCC prohibits the unauthorized use of course materials. Materials shared in this course are based on my professional knowledge and experience as an instructor and are presented in an educational context for the students in the course. Authorized use of course materials is limited to personal study or educational uses. Material should not be shared, distributed, or sold outside the course without permission. Students are also explicitly forbidden in all circumstances from plagiarizing or appropriating course materials. This includes but is not limited to publicly posting quizzes, essays, or other materials. This prohibition extends not only during this course, but after. Sharing of the materials in any context will be a violation of the HCC Student Code of Conduct and may subject the student to discipline, as well as any applicable civil or criminal liability. Consequences for unauthorized sharing, plagiarizing, or other methods of academic dishonesty may range from a 0 on the specified assignment and/or up to expulsion from Houston Community College. Questions about this policy may be directed to me, your instructor, or to the Manager of Student Conduct and Academic Integrity.

Unauthorized Disclosure

"Unauthorized disclosure" occurs when any student provides instructional materials and/or assessments to other students in violation of a clear prohibition by the instructor. Examples include: posting assessment items to online sites such as Chegg or CourseHero; asking exam questions in forums like Reddit or Yahoo Answers; discussions of confidential question using Wechat or GroupMe, etc.

Course Calendar

TENTATIVE COURSE SCHEDULE*

Modules	Due Before Lab	Lab Exercises and Exams
1: Aug 21		Orientation; Lab 1: Lab Safety & Procedures
Aug 28	Pre-lab 1, 2	Microscopy & Pond Water
Sep 4		Holiday - no class
Sep 11	Pre-lab 3, 4	Ubiquity of Bacteria & Fungi
Sep 18	Pre-lab 5, 6	Observe Lab 3 results; Aseptic & Pure Culture Technique
Sep 25	Pre-lab 7, 8	Observe Lab 5&6 results; Prepare Smear & Simple Staining
Oct 2		Lab Exam 1 (Includes Ex 1-8)
2: Oct 2		Negative Staining
Oct 9	Pre-lab 10, 11	Capsular Staining & Gram Staining
Oct 16	Pre-lab 12-14	Endospore & Acid-Fast Staining & Motility Testing
Oct 23	Pre-lab 15, 16	Observe Lab14 results; Phage Typing & Effect of Oxygen
Oct 30		Lab Exam 2 (Includes Ex 9-16); Observe Previous Results
3: Nov 6	Pre-lab 17-20	Kirby-Bauer, Chemicals, Fermentation, Multiple Test Media
Nov 13	Pre-lab 21	Observe results of Lab 17-20; Effect of Temperature
Nov 20		Holiday - no class
Nov 27	Pre-lab 22-24	Observe results of Lab 21; Staph, Strep & G- Intestinal Pathogens
Dec 4		Observe results from Lab 22-24
Dec 11		Lab Exam 3 (comprehensive exam includes lab 1- 24)

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.

Important dates:

Classes begin: Aug 21

Official day of record: Sep 5

Last day to withdraw: Oct 27

Classes end: Dec 17

Holidays - no class:

Labor Day: Sep 4

Thanksgiving Holiday: Nov 20-26

Additional Information

Biology Departmental/Program Information

Visit the [Biology Program Page \(https://learning.hccs.edu/programs/biology\)](https://learning.hccs.edu/programs/biology) on the HCC Learning Web for information about our faculty and courses. You will also find information about majoring in Biology.

The [Field of Study \(FOS\) Curriculum for Biology \(https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/biology/\)](https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/biology/) here at HCC covers the smallest and simplest organisms (microbiology) to the largest and most complex organisms (human anatomy and physiology, zoology, botany).

The [Associate of Science in Biology - Biology Majors & Premedical Programs \(https://catalog.hccs.edu/preview_program.php?catoid=3&poid=905\)](https://catalog.hccs.edu/preview_program.php?catoid=3&poid=905) FOS is intended primarily for students planning on transferring to a senior college or university to receive a baccalaureate degree in the following areas: computer science, engineering, health and natural sciences, or mathematics.

The [Associate of Science in Biology - Health Sciences Professions \(https://catalog.hccs.edu/preview_program.php?catoid=3&poid=906\)](https://catalog.hccs.edu/preview_program.php?catoid=3&poid=906) FOS is intended primarily for students planning on transferring to a senior college or university to receive a baccalaureate degree in the following areas: computer science, engineering, health and natural sciences, or mathematics. (Pre-Nursing, Pre-Radiologic Sciences, Pre-Clinical Laboratory Services)

Visit the [STEM Resources Page at HCC \(https://www.hccs.edu/resources-for/current-students/stem--science-technology-engineering--mathematics/\)](https://www.hccs.edu/resources-for/current-students/stem--science-technology-engineering--mathematics/): HCC has developed this site to provide information on STEM related programs and resources at HCC and other institution – to include scholarship information.

Process for Expressing Concerns about the Course

If you have concerns about any aspect of this course, please reach out to your instructor for assistance first. You can always request a meeting (virtual/ in person) to go over your concerns. If your instructor is not able to assist you, then you may wish to contact the Biology Department using this form.

[Biology Department Reporting Form \(https://forms.office.com/r/8BwrMbqCYB\)](https://forms.office.com/r/8BwrMbqCYB)

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