

HOUSTON COMMUNITY COLLEGE (Stafford Campus)

GENERAL BIOLOGY II FOR SCIENCE MAJORS BIOL 1407/CRN #56264 Instruction Mode: In Person

INSTRUCTOR CONTACT INFORMATION

Instructor: Leena Sawant Office Phone:

Office: S106 Office Hours: Monday to Thursday 8AM to 2PM

E-mail: leena.sawant@hccs.edu

WELCOME TO

Course Title: GENERAL BIOLOGY II Semester and Year: Spring 2018

Course Prefix: BIOL 1407 Class: Tuesday & Thursday 11AM to 2PM

Course Number: 56264 Lecture: Tuesday, Time: 11AM -1:50PM Rm S102 Credit Hours: 4 Lab: Thursday, Time: 11AM-1:50PM, Rm E106

COURSE OVERVIEW

Program Student Learning Outcomes (PSLOs) for the Biology Discipline

- **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 Description and Student Learning Outcomes (CSLOs)

Course Description: The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Completion of the specific Student Learning Outcomes listed below does NOT and will NOT guarantee the student any specific final course grade at the end of the semester!

STUDENT LEARNING OUTCOMES

- 1. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macro evolution, and speciation.
- 2. Describe phylogenetic relationships and classification schemes.
- 3. Identify the major phyla of life with an emphasis on plants and animals including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
- 4. Describe basic animal physiology and homeostasis, as maintained by organ systems.
- 5. Compare different sexual and asexual life cycles noting their adaptive advantages.
- 6. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.
- 7. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- 8. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.

9. Communicate effectively the results of scientific investigations.

In our efforts to prepare students for a changing world, students may be expected to utilize computer technology while enrolled in classes, certificate, and/or degree programs. The specific requirements are listed below:

GETTING READY

Prerequisites: BIOL 1406 or equivalent General Biology I course for Majors Biology.

Co-requisites: None

Required Material: Textbook: Valuepack

BIOL 1407 Title: "Campbell Biology in Focus, Volume 2 with Modified MasteringBiology Package for

Houston Community College, 1/e Pearson. ISBN: 1323751440 // 9781323751442

Required Laboratory Manual:

Biology 1407 Laboratory manual Blue Door Publishing 3rd edition 2013 9781599843131

Learning Web: Syllabus and other relevant course information may be posted on the Learning web and Eagle Online found at the following link:

http://learning.hccs.edu/faculty/

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

Other Materials and resources:

Mastering Biology: www.pearsonmastering.com

Biology Lab Review Pages: http://ctle.hccs.edu/biologylabs/index.html You will get access to digital images, animations, and labeling exercises to review models, slides, and experiments that we cover in lab.

STEM Website for students: www.hccs.edu/district/students/stem Great information on science clubs, seminars, symposium, and research opportunities that are available to HCC students. Check back often-updated regularly.

Career Planning and Resources: Help with resume building and internships. http://www.hccs.edu/district/students/career-planning/

Tutoring: https://hccs.upswing.io/ Get expert one-on-one help, Online or In Campus, specifically for HCC students.

Campbell Biology in Focus General Biology II (Biol1407) Class Schedule Spring 2018

<u>TENTATIVE INSTRUCTIONAL OUTLINE:</u> The Instructor reserves the right to change the instructional outline if needed. Students will be informed in a timely manner of any changes.

Weeks	Dates	Lecture	Lab. Schedule
1	1/16	Class canceled due to bad weather	
	1/18	Ch. 19 Descent with Modification	
2	1/23	Ch. 20 Phylogeny	Lab.1 Human Genetics
	1/25	Ch. 21 Evolution of Population	
3	1/30	Ch. 22 Origin of Species	Lab.2 Evolutionary Observations
	2/1		
4	2/6	Ch. 23 Broad Patterns of Evolution	Lab.3 Bacteria
	2/8	Lecture Ex1-Ch.19, 20, 21, 22 & 23	
5	2/13	Ch. 24 Early life-Diversification of Prokaryotes	Lab. 4 Protista
	2/15	Ch. 25 Origin/Diversification of Eukaryotes	
6	2/20	Ch. 26 Colonization of Land	Lab. 5 Fungi
	2/22	Ch. 27 Rise of Animal Diversity	
7	2/27	Lab. Exam 1 (Labs 1 to 6)	Lab. Reports 1 to 6 due Feb 27
	3/1	Ch. 28 Plant Structure and Growth	Lab. 6 Plants
		Ch. 29 Acquisition, Nutrition and Transport	
8	3/6	Ch. 30 Plant Reproduction	
	3/8	Ch. 31 Plant Response to Internal & External Signals	
9	3/12	Spring Break	Quiz 1 and Reading Assignment for
	3/16		Ch. 28, 29, 30, 31 due March 20th
10	3/20	Ch. 32 Internal Environment of animals	Lab. 7 Invertebrates
	3/22	Lecture Exam 2 Ch. 24, 25, 26, 27	
11	3/27	Ch. 33 Animal Nutrition	Lab. 8 Animal Tissue
	3/29	Last Day for withdrawal April 3rd by 4:30PM	
12	4/3	Ch. 34 Circulation & Gas Exchange	Lab.11 Urinary System
	4/5	Ch. 35 The Immune System	
13	4/10	Ch. 37 Neurons, Synapses and Signaling	Lab. 9 Circulatory System
	4/12		Lab. 10 The Respiratory System
14	4/17	Lecture Exam 3 Ch. 32, 33, 34	
	4/19	Ch. 36 Reproduction and Development (Self Study)	
15	4/24	Ch. 40 Population Ecology	
		Ch. 41 Species Interaction	Quiz 2 and Reading assignment for
	4/26	Ch. 42 Ecosystems and Energy	Ch. 36, 40, 41,42, 43
		Ch. 43 Global Ecology and conservation	
16	5/1	Lab. Exam 2 (Labs. 7 to 11)	Lab. Reports 7 to 11 due May 1st
	5/3	Lecture Exam 4 Ch. 35 & 37	
17	5/8	Final Exam Comprehensive	

INSTRUCTOR GUIDELINES AND POLICIES

Basic requirements

Students should be on time for class and be prepared with required materials including textbook and lab manual. Full class attendance is required including lecture and lab portions. No use of any electronic devices during the class period. Students are expected to conduct themselves as adults. This includes courteous and respectful behavior towards the instructor and classmates. Disruptive behavior or any behavior that interferes with any educational activity being performed by the instructor will not be allowed. Disruptive behavior may result in removal from the class.

Attendance: Attendance is mandated by the state. You are expected to attend the entirety of the scheduled lecture and lab 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.** 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.
- For a 4 credit-hour lecture/lab course meeting 6 hours per week (96 hours of instruction), you can be dropped after 12 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.

Examination:

There will be 4 lecture exams, 2 lab. exams and 2 final exams. Lecture exams will consist of mostly multiple-choice questions and a one or two short answer questions. Out of the 4 lecture exams only 3 will be considered towards your final grade. They will cover material we cover in class, important concepts, figures and discussion from the text book. You will get a maximum of one hour or one and half-hour period to complete your lecture exam. The lecture or lab. exams will follow either lecture or lab. exercise. The final exam will be comprehensive (it will cover all the chapters). There will be a departmental final that all students need to take. You will take 2 final exams one by the department and one by your instructor on the same day. The average of both final exams will be included in your final grade. No cell phones are allowed in use at any time as it disturbs the class. Audible cell phone ringing may result in your removal from class that day. Cell phone use during examination is cheating and will result in course failure. During exams cell phone should be switched off and kept in the bag. If you arrive late for the exam you will lose 5% of your exam grade.

Online: Homework Assignments and Quizzes:

There will be mandatory online homework assignment on the Mastering Biology. You can access the assignments from **Eagle Online** by clicking on the "**Mylab and Mastering**" link on the left column. Each student is responsible to register for mastering biology using an access code. The access code comes with the new book. **You can register for mastering free for 14 days**. Before the free trial period ends you will have to purchase the access code. The homework assignments will be graded and will contribute to 5% of the final grade. The quizzes are 5% of your grade. The due dates for the assignments and quizzes will not be extended. Please read the instructions before you start taking the assignments and quizzes.

Group Activities/Project/s:

There will be a few activities or projects that you will conduct as a group either in class or as a homework assignment. These group activities/projects contribute to 5% of your final grade. Any student who fails to participate in the group projects will not be given the grade. Information regarding the group project will be given to you during the first week. Any assignments turned in after the due date will not be graded and will receive a zero.

Make-up Examination:

There will be no make-up exams and final exams are mandatory. If you miss a lecture exam it will be considered as a dropped exam. If you miss a lecture exam due to a medical or any other emergency, you can take one makeup exam during the week of **April 23rd to April 26th**, if you provide a valid medical note. You will need to call the Stafford campus testing center at 713 718 7993 and schedule an appointment a week before April 23rd. The makeup exam is comprehensive and will have 10 essay questions. Please note: All students are required to take the final exam. Failure to take the final exam will result in an 'F' grade.

IN CLASS TECHNOLOGY (Cell Phones, Laptops, etc.)

Absolutely no phone or other personal electronic devices are to be used during class (lecture and lab) unless permission is obtained from the professor. This includes making or taking a call, reviewing messages, texting, playing games, checking email, surfing the web, anything that involves a phone or other personal electronic device. 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 our regular scheduled breaks 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.

NO EATING OR DRINKING OR SMOKING IN LABORATORY: No food or drinks are allowed in the laboratory. In addition, no smoking is allowed.

Laboratory Policy:

Lab safety will be reviewed on the first day of lab. Experiments will be performed in groups. Each student should arrive at the lab. on time, with his or her lab. manual. Read the lab. exercise before coming to class during lab. days. Each student is responsible for completing the lab. reports at the end of each lab. Lab. participation and lab reports account to 5% of your final grade.

QUESTIONS/PROBLEMS: Please make sure that if you have any questions or problems at any time, that you first contact me as soon as possible. The worst thing you can do is wait to contact me or to not take advantage of the resources available to you. By taking an active part in your education, you will make your academic experience much more rewarding and exciting!!

EGLS₃ (Evaluation for Greater Learning Student Survey System)

At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time near the end of the term, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and department chairs for continual improvement of instruction. Go to www.hccs.edu/egls3 for more information.

Please refer to **Student Handbook** for complete instructions and rules.

GRADE DETERMINATION: GRADE DETERMINATION:

All the exams will be considered towards final grade.

Three Lecture exams & two Final exams = 60%

Homework Assignments on Mastering Biology = 5%

Group activities/project/s = 5%

Online Quiz = 5%

Two laboratory exams = 20%

Lab. Report and Lab. participation = 5%

LETTER GRADE ASSIGNMENT:

Grading Scale

REPEATING COURSES (THREE-PEAT RULE)

As a result of recent Texas legislative changes, please be advised that HCC is charging additional tuition for students who enroll in the same class three or more times at HCC. While it is the hope of HCC that students will be successful in their first attempt at classes, we realize that life demands, academic struggles, and other issues may result in students needing to take the same class more than once. Speaking with an advisor will help you develop student success skills, improving your overall academic performance. If a student repeats a course in which a grade (A-F) has been received, the highest grade received at HCC is the permanent grade for the course and will be used in computing the GPA. All grades earned in a given course will be reflected on the transcript. Other colleges may compute the GPA differently than HCC.

COURSE WITHDRAWLS (6-Drop Rule)

Students must withdraw by the withdrawal deadline in order to receive a "W" on a transcript. Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online Academic Calendar, any HCC Registration Office, or any HCC advisor to determine class withdrawal deadlines.

Be certain you understand HCC policies about dropping a course and consult with a counselor/advisor to determine if withdrawing is in your best interest. It is your responsibility to withdraw officially from a class and prevent an "F" from appearing on your transcript. Senate Bill 1231 limits the number of W's a student can have to 6 classes over the course of their entire academic career. This policy is effective for students entering higher education for the first time in fall 2007 and subsequent terms. Withdrawals accumulated at any other Texas public higher education institution count toward the 6 course total. Withdrawals for certain circumstances beyond the students control may not be counted toward the 6-drop limit.

In addition, withdrawing from a course may impact your financial aid award or eligibility. Contact the Financial Aid Office or website to learn more about the impact of withdrawing on financial aid.

HCCS IS COMMITTED TO YOUR SUCCESS

Early Intervention Program and Services

Your success is our primary concern! If you are experiencing challenges achieving your academic goals, please contact your instructor or an early intervention coach. We can provide assistance with academic needs, ADA accommodations, classroom difficulties, financial concerns, and other issues.

Tutoring

HCCS provides free online and on campus tutoring for all HCC students. Go to https://hccs.upswing.io/ Students will use their Active Directory student ID and password. A video explaining how the new system works is located on the bottom of the Upswing log in page. For more information, contact Deborah Hardwick (deborah.hardwick@hccs.edu).

Counseling Services

Counseling services are available to students who are experiencing difficulty with academic issues, selection of college major, career planning, disability accommodations, or personal issues. http://learning.hccs.edu/programs/counseling

Disability Support Services (DSS)

Any Student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations should inform the instructor within one week of the first class session and must contact the Counselor at 713-718 7889, or contact the DSS office for assistance. At Southwest College, contact Dr. Becky Hauri, 713-718-7909.

Campus Carry

At HCC the safety of our students, staff, and faculty is our first priority. As of August 1, 2017, Houston Community College is subject to the Campus Carry Law (SB11 2015). For more information, visit the HCC Campus Carry web page at http://www.hccs.edu/district/departments/police/campus-carry/

ADDITIONAL INSTRUCTOR AND INSTITUTIONAL POLICIES

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.

STUDENT BEHAVIOR EXPECTATIONS

Students are expected to conduct themselves appropriately while on College property or in an online environment. The instructor would institute established HCCS disciplinary action. Students who pose a threat to the safety of others will be subject to immediate withdrawal from the classroom. Please refer to the HCC Student Handbook.

AMERICANS WITH DISABILITIES ACT STATEMENT

HCCS is dedicated to providing the least restrictive environment for all students. We promote equity in academic access through the implementation of reasonable accommodations as required by the Vocational Rehabilitation Act of 1973, Title V, Section 504 and the Americans with Disabilities Act of 1990 (ADA) which will enable students with disabilities to participate in and benefit from all post-secondary educational activities.

If you require reasonable accommodations because of a physical, mental, or learning disability, please contact the Counseling Office to obtain the necessary information to request accommodations http://www.hccs.edu/district/students/disability-services/ada-counselors/.

Upon completion of this process, please notify your instructor as soon as possible and preferably before the end of the first two weeks of class to arrange for reasonable accommodations.

COMPUTER VIRUS PROTECTION

Computer viruses are, unfortunately, a fact of life. Using removable devices on more than one computer creates the possibility of infecting computers and diskettes with a computer virus. This exposes the computers of the college, your personal computer, and any others you may be using to potentially damaging viruses. The college has aggressive anti-virus procedures in place to protect its computers, but cannot guarantee that a virus might not temporarily infect one of its machines. It is your responsibility to protect all computers under your control and use and ensure that each diskette you use, whenever or wherever you use it, has been scanned with anti-virus software. Since new viruses arise continually, your anti-virus software must be kept current. And, since no anti-virus software will find every virus, keeping backup copies is extremely important.

EQUAL OPPORTUNITY STATEMENT

It is the policy of the HCCS to provide equal employment, admission and educational opportunities without regard to race, color, creed, national origin, gender, age, veteran's status, sexual orientation, or disability.

FERPA

The academic, financial and non-directory information on your student account is confidential and protected by the Family Educational Rights & Privacy Act (FERPA). We cannot release certain information to another person without your written authorization. Further information regarding Student Records and FERPA can be found at; http://www.hccs.edu/district/about-us/procedures/student-rights-policies--procedures/

TITLE IX OF THE EDUCATION AMENDMENTS OF 1972, 20 U.S.C. A§ 1681 ET. SEQ.

Title IX of the Education Amendments of 1972 requires that institutions have policies and procedures that protect students' rights with regard to sex/gender discrimination. Information regarding these rights are on the HCC website under Students-Anti-discrimination. Students who are pregnant and require accommodations should contact any of the ADA Counselors for assistance. It is important that

every student understands and conforms to respectful behavior while at HCC. Sexual misconduct is not condoned and will be addressed promptly. Know your rights and how to avoid these difficult situations. Log in to: www.edurisksolutions.org. Sign in using your HCC student e-mail account, then go to the button at the top right that says **Login** and enter your student number.

HCC Policy Statement: Sexual Misconduct

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. 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, Houston, TX 77266-7517 or Institutional.Equity@hccs.edu

HURRICANE HARVEY IMPACT

Statement from Dr. Norma Perez, Interim Vice Chancellor, Instructional Services/Chief Academic Officer "Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so"

FINAL EXAMINATIONS

A final evaluation activity will occur during the published final evaluation period. The appropriate dean, director, or department chair must approve any variation to this schedule.

IMPORTANT DATES:

Jan 16	Classes begin
Jan 31	Official Date of Record
Feb 19	School closed: President's Day Holiday
March 12-18	School closed: Spring Break
April 3 rd by 4:30PM	Last Day for Administrative/Student Withdrawal
May 6	Last Day of Instruction
May 7-11	Final Examinations
May 13	Semester ends

DISCLAIMOR: It is your responsibility to read the syllabus in its entirety by the second class period and contact the Instructor if you have any questions and/or need clarifications.