

# HOUSTON COMMUNITY COLLEGE-SOUTHWEST COLLEGE

## SYLLABUS FOR GENERAL BIOLOGY II –Spring 2016

INSTRUCTOR: DR. LEENA SAWANT

leena.sawant@hccs.edu

**Course Title:** Biol.1407 General Biology II

**CRN:** 91904

**Credit Hours:** 4 (3 Lecture hours, 1 laboratory hour)

**Class Time:** Tuesday: 11 AM to 2PM Rm. S102, Thursday: 11AM to 2PM, Rm. W119

**Text Book:** Campbell BIOLOGY Volume 2: 10th Edition by Jane B. Reece. Sold at HCC bookstore.

**Laboratory Manual:** Biology 1407: Laboratory Manual, Second Edition, Houston Community College

Contributing Authors: David Schwartz & Ndu Dikeocha

**Total Course Contact Hours:** 96:00

**Course Length (Number of Weeks):** 16 Weeks

**Type of Instruction:** Lecture and Laboratory

### Important links:

Learning web: <https://learning.hccs.edu/>

Mastering Biology: [www.pearsonmastering.com](http://www.pearsonmastering.com)

HCC STEM: <http://hccs.edu/STEM>

Biology Lab. study: <http://ctle.hccs.edu/biologylabs/index.html>

Career Planning and Resources: Help with resume building and internships.

<http://www.hccs.edu/district/students/career-planning/>

### Course Description:

Topics include evolution, classification and ecological relationships, and organ systems of animals and plants.

**Course Prerequisite:** College level reading (or take GUST 0342)  
College level writing (or take ENGL 0310/0349 and  
BIOL 1406 (General Biology I).

### PROGRAM LEVEL STUDENT LEARNING OUTCOMES:

#### Program Student Learning Outcomes (PSLOs) for the Biology Discipline:

PSLO#1 - Will display an understanding of biological systems and evolutionary processes spanning all ranges of biological complexity, including atoms, molecules, genes, cells, and organisms.

PSLO#2 - Will integrate factual and conceptual information into an understanding of scientific concept by written, oral and/or visual communication. (This may include successful completion of a course-specific research project or a case study module).

PSLO#3 - Will demonstrate proficiency and safe practices in the use of laboratory equipment and basic laboratory techniques.

PSLO#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) for Biology 1407:

1. The student will be able to state observations and inferences leading to Darwin's Theory of Evolution by means of natural selection, including perform an experiment in population genetics and analyze the

data using the Hardy-Weinberg equations; to understand the importance of fossils and be able to calculate the age of a fossil by means of isotopic decay.

2. The student will be able to explain the origin of species, the history of life on Early Earth, and to identify the key events in life's history, including the origins of single-celled organisms and the colonization of land.

3. The student will be able to describe the evolutionary history of biological diversity, from Bacteria/Archaea to Protist, plants, fungi, and ultimately to animals/humans, including the structures, nutrition, reproduction, and characteristics of such organisms.

4. The student will be able to compare and contrast taxonomic, morphological, digestive, and reproductive characteristics of Mollusca, Annelida, Arthropod, Chordata, and Vertebrata in the Kingdom Animalia.

5. The student will be able to understand the basic principles of animal form and function, including feedback control/homeostasis, to include the basic anatomy and physiology of the following animal organ systems: digestive, cardiovascular, respiratory, immune, excretory, endocrine, reproductive, and nervous systems.

6. The student will develop critical thinking, scientific problem-solving, and communication skills by successfully participating in a case study or course-specific research project.

7. The student will apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes, anatomical models, and other laboratory equipment to collect and analyze data.

| <b>Wk</b> | <b>Weeks</b>       | <b>Chapter</b>  | <b>Laboratory Schedule</b>                            |
|-----------|--------------------|---|---|
| 1         | 1/19<br>1/21       | Ch. 22 Decent with modification<br>Ch. 22 contd   |   |
| 2         | 1/26<br>1/28       | Ch. 23 The Evolution of Population<br>Ch. 24 The Origin of Species  | Lab. 1 Human Genetics                                 |
| 3         | 2/2<br>2/4         | Ch. 25 The History of Life on Earth<br>Ch. 26 Phylogeny and the Tree of Life:<br>Ch. 27 Bacteria and Archaea  | Lab. 2 Evolutionary Observations<br>Lab.3 Prokaryotes |
| 4         | 2/9<br><b>2/11</b> | <b>Online Quiz 1 (Ch. 22 to 24) Due Feb 7th</b><br>Ch. 28 Protists<br><b>Lecture Exam 1, (Ch. 22-27) Feb 11<sup>th</sup></b>  |   |
| 5         | 2/16<br>2/18       | Ch. 29 Plant Diversity I: How Plants Colonized Land<br>Ch. 30 Plant Diversity II: The Evolution of Seed Plants<br>Ch. 31 Fungi  | Lab. 4 The Protista                                   |
| 6         | 2/23<br>2/25       | Ch. 32 An Introduction to Animal Diversity<br>Ch. 33 Invertebrates<br><b>Online Quiz 2 (Ch.28 to 30) Due Feb 28th</b>   | Lab. 5 The Fungi                                      |
| 7         | 3/1<br><b>3/3</b>  | <b>Ch. 35, 36, 37, 38 Self Study, online assignment only</b><br><b>Ch.34 Vertebrates</b><br><b>Lecture Exam 2, (Ch. 28-33) March 3rd</b>  | Lab 6 Kingdom Plantae<br>Lab 7 Invertebrates          |
| 8         | 3/8<br>3/10        | <b>Laboratory exam(Labs 1 to 6) Mar 8th</b><br>Ch. 34 contd   |   |
| 9         |                    | <b>Spring Break Mar.14<sup>th</sup> to 20<sup>th</sup></b>  |   |
| 10        | 3/22<br>3/24       | Ch. 41 Animal Nutrition<br>Ch.42 Circulation & Gas Exchange   | Lab. 8 Animal Tissue                                  |
| 11        | 3/29<br>3/31       | Ch. 43 The Immune System<br>Ch. 44 Osmoregulation & Excretion   | Lab. 9 The Circulatory System                         |
| 12        | 4/5<br>4/7         | <b>Online Quiz 3 (Ch. 34, 40 &amp; 41) Due March 29th</b><br><b>Last Day for Administrative Student Withdrawal (April 5th by 4.30pm)</b><br><b>Lecture Exam 3 (Ch.34, 40-43) April 7<sup>th</sup></b> | Lab. 10 The Respiratory System                        |
| 13        | 4/12<br>4/14       | Ch. 45 contd.<br>Ch. 46 Animal Reproduction (Self study)<br>Ch. 47 Animal Development   | Lab. 11 The Urinary System                            |
| 14        | 4/19<br>4/21       | <b>Online Quiz 4 (Ch. 44, 45 &amp; 46) Due April 19<sup>th</sup></b><br>Ch. 48 Neurons, Synapses and Signaling<br>Ch 49 Nervous system  | Lab. 12 The Nervous System                            |
| 15        | 4/26<br>4/28       | <b>Lecture Exam 4 (Ch. 44,45,48 &amp;49) April 28<sup>th</sup></b><br>Ch. 54 Community Ecology<br>Ch. 55 Ecosystems   |   |
| 16        | 5/3<br>5/5         | <b>Laboratory Exam 2 (Labs. 7 to 10) May 3rd</b><br><b>Instruction ends May 8<sup>th</sup></b><br>Review  |   |
| 17        | 5/10               | <b>Final Exam (comprehensive) May 10<sup>th</sup></b>   |   |

**Instructor reserves the right to change the syllabus.**

**Instructor's contact:**

Email: [leena.sawant@hccs.edu](mailto:leena.sawant@hccs.edu) (Please use your HCC student email to write to me)

Office Hours: 8 a.m. to 2 pm.

Monday/Wednesday (Missouri City Campus) and Tuesday/Thursday (Stafford Campus).

You can access the syllabus on the learning web page from the HCCS home page:

<https://learning.hccs.edu> .

All the course material is available on Mastering Biology (Course ID **sawant91993**) at

[www.pearsonmastering.com](http://www.pearsonmastering.com)

#### Instructor Requirements:

##### **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 at lecture is important since most exam material will come from the lecture notes. Students are expected to attend classes regularly and on time. Latecomers will not be tolerated. Students are responsible for materials covered during their absences. Class attendance is checked daily by instructors. *A student cannot miss more than 12.5% of the hours of instruction (including lecture and laboratory time).*

**Note that 12.5% is approximately 4 classes or labs for a 4-semester hour course, such as this one, which meets for 3 hours twice weekly.** If circumstances significantly prevent you from attending classes, please inform me. It is the responsibility of each student to amend their professional/personal schedule to meet the class schedule

##### **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 assignments and quizzes on the Mastering Biology site

[www.pearsonmastering.com](http://www.pearsonmastering.com)

Your course ID for your course is **sawant91993**. Each student is responsible to register on the mastering biology website using an access code. If you have used Mastering Biology for 1406, you can use the same login name and password to access mastering. The access code comes with the new book. If you do not have a Mastering account and **do not have the new textbook** with the access code, you can register and **use the 14 day free trail**. Then enter your course ID and can access mastering for free for that trail period. Before the free trial period ends you will have to purchase the access code. All homework assignments will be graded and will contribute to 10% of the final grade. **The due dates for the assignments and online quiz will not be extended.**

##### **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.

**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 25<sup>th</sup> to April 28<sup>th</sup>**, 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 25<sup>th</sup>. 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.

**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.

**Grade Determination:**

All the exams will be considered towards final grade.

|                                       |       |
|---------------------------------------|-------|
| 3 Lecture exams & 2 Final exams       | = 55% |
| 3 Online Quizzes on Mastering Biology | = 10% |
| Assignments on Mastering Biology      | = 5%  |
| Group activities/projects             | = 5%  |
| Lab. exam                             | = 20% |
| Lab. Report & Lab participation       | = 5%  |

- A** = 90-100,
- B** = 80-89,
- C** = 70-79,
- D** = 60-69,
- F** = Below 60.

**Academic honesty:**

Students are expected to comply with stated policies in HCC student handbook concerning academic honesty. Cheating will not be tolerated. There will be no talking, looking on other people's papers or in any way try to cheat on any examination. This can lead to expulsion from Houston Community College. You will be given a warning in writing and next time it will mean and automatic failure in the course.

**Phones/electronic devices**

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.

**Last Day for Administrative and Student Withdrawals**

Last day for withdrawal is **April 5th, 2016**. I urge any student who is contemplating withdrawing from the class to see me first! You may be doing better than you think. Either way, I want to be accessible and supportive. I'm here to help. **It is the student's responsibility to withdraw from the class before the last**

**day of withdrawal. The instructor cannot give a “W” after the withdrawal date. Abandoning the course or failing to formally drop, will result in a grade being given based on the work completed for the entire course (including missed exams).**

To help students avoid having to drop/withdraw from any class, HCC has instituted an **Early Alert process** by which your professor will “alert” you that you might fail a class because of excessive absences and/or poor academic performance. The counselors will work with you to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

**FINAL GRADE OF FX:** Students who stop attending class and do not withdraw themselves prior to the withdrawal deadline will be assigned the final grade of "FX" at the end of the semester. Students who stop attending classes will receive a grade of "FX", compared to an earned grade of "F" which is due to poor performance. Logging into a DE course without active participation is seen as non-attending. Please note that HCC will not disperse financial aid funding for students who have never attended class.

Students who receive financial aid but fail to attend class will be reported to the Department of Education and may have to pay back their aid. A grade of "FX" is treated exactly the same as a grade of "F" in terms of GPA, probation, suspension, and satisfactory academic progress.

#### **International Students:**

Receiving a W in a course may affect the status of your student Visa. Once a W is given for the course, it will not be changed to an F because of the visa consideration. Please contact the International Student Office at 713-718-8520 if you have any questions about your visa status and other transfer issues.

#### **Tutoring:**

The southwest college will provide tutoring for the students. More information will be available later.

#### **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.

#### **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](http://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 on Course Repeat:**

Student who repeats a course three times or more may soon face significant tuition/fee increases at HCC and other public colleges and universities. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test-taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available. Beginning in fall 2007, the Texas

Legislature passed a law limiting first time entering freshmen to no more than SIX total course withdrawals throughout their educational career in obtaining a certificate and/or degree

**HCC Policy Statement on EGLS<sub>3</sub> (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](http://www.hccs.edu/egls3) for more information.**

Access HCC Student Handbook at <http://www.hccs.edu/district/students/student-handbook/>

### Biology 1407 Acknowledgement Page

I acknowledge that I have read the syllabus for General Biology II (Biol1407). I am responsible for completing the group activities/projects, online quizzes and assignments on mastering biology that count towards my final grade. I understand the effort and time commitment necessary to succeed in this Science Majors Class. **(OVER 300 HOURS OF STUDY/15 Weeks=20 hr./week)**

Class Time: \_\_\_\_\_

CRN: \_\_\_\_\_

Name \_\_\_\_\_

Email Address \_\_\_\_\_

Current Phone # \_\_\_\_\_

