# Houston Community College BIOL 2320 – Microbiology Fall Semester 2017 (CRN 36516) - Updated Professor: Dr. Jyoti R. Wagle



This is an online BIOL 2320 lecture course!

It was to begin on August 28<sup>th</sup> ....now updated for hurricane Harvey.

If you do not log-in Eagle Online for this course before the official date of record (4:00 pm, September 26<sup>th</sup>), HCC business office will drop you from the course. No re-instating will be granted once you have been dropped for non-attendance.

Instead of attending lectures on campus, you will be using textbook and online study tools provided for each chapter.

A reliable computer with a reliable internet connection is the top requirement for this course. No accommodations will be made for breakdown of any of the above.

Online class is not easier....it just gives you time flexibility.

You must stay organized and study hard in order to do well.

Three most common mistakes made by online students:

1. Under-estimating study time.

2. Waiting till the last minute.

**3.** Missing the deadlines.

Print the semester schedule and post it somewhere that you can check on daily basis.

You will be required to take online and on-campus exams (refer to details below). No accommodations will be made for missing the deadlines for any reason....personal, medical or technical.

You are responsible for buying the MANDATORY textbook immediately. It is available at <u>HCC Central College bookstore</u>. You will benefit if you purchase early, before the semester begins. Buying online may delay your start.

You also need Pearson Mastering access (information below).

This is only a general syllabus. The detail syllabus is provided on Eagle Online on the first day of the semester.

In order to access HCC Eagle Online Learning Management System, you must log in: <u>http://eagleonline.hccs.edu</u>

Use your HCC email address as your user ID and then your password. If this is your first time using Eagle Online, follow directions to create your password. Then select the course. It is your responsibility to confirm your log-in access for Eagle Online website ahead of time so that you are able to start the course on the first day of the semester.

You are recommended to check Eagle Online on the first day and then <u>at least 2-3 times in</u> <u>a week</u> in order to access study tools, exams, announcements, reminders and emails. Use of a PC or a laptop is recommended.....iPad or telephone is not guaranteed to give you full accessibility of the resources or the exams.

#### **CONTACT INFORMATION:**

Email: jyoti.wagle@hccs.edu

**Telephone:** 713–718–2541

Learning web site: <u>http://learning.hccs.edu/faculty/jyoti.wagle</u>

**Office location and hours:** My office is in LHSB 401, Central College, 1300 Holman. My office hours are: 9:30-11:00 am on Tuesdays and Thursdays.

Please email to arrange the meeting time.

If you have problem with your access to Eagle Online, make sure you call 713-718-5275 for technical support. Or email at <u>desupport@hccs.edu</u>, counseling services at <u>de.counseling@hccs.edu</u>

# **Instructional Materials**

- 1. <u>Microbiology With Diseases by Taxonomy</u> by Robert W. Bauman, 5th edition, Pearson Publishers, 2017
- 2. Eagle online section for this course is available on the first day of the semester by going to: <u>http://eagleonline.hccs.edu</u>
- Pearson Mastering (<u>www.pearsonmastering.com</u>) where you will complete mandatory assignments to help you review chapter information. You will need Access Code and Course ID. More information provided below. Technology contact at Pearson: 1-800-677-6337
- 4. Free tutoring is offered by HCC at several campuses. For locations and timings, go to: <u>http://www.hccs.edu/district/students/tutoring/</u>

#### **Prerequisites:**

College reading level as determined by SAT, ACT, TASP, or successfully passing ENGL 0305 with a "C" or better.

Although BIOL 1406 is not a required prerequisite for BIOL 2320, it is highly recommended to understand some of the key concepts taught in this course.

#### **Instructional Methods**

This is an online lecture course.

Through Eagle Online and Pearson website, you will have access to PowerPoints, animations, flashcards and practice quizzes for each chapter. After going through the textbook and the study tools you will take online and in-person exams.

# **Course Goals & Description**

In this course, you will study basic structure, biochemistry, metabolism, nutrition, reproduction, and genetics of microorganisms. You will explore the mechanisms of transmission, microbial entry, pathogenesis, prophylaxis, epidemiology, and control of selected human pathogens. Basic body defense mechanisms and immunological responses to pathological conditions will also be examined.

# Weekly Reading Schedule and Exam Dates

\* The instructor reserves the right to make changes in this syllabus to accommodate Harvey Impact or changes in departmental policies. You will be informed of these changes within reasonable time period. This is a tentative schedule. Please confirm the dates once Eagle Online course section becomes available to you on the first day of the semester.

Week	Reading and Testing Schedule		
Aug 28	College closed due to weather		
Sept 5	College closed due to weather		
Sept 11	Review syllabus and course organization on (eagleonline.hccs.edu)		
	1. A Brief History of Microbiology		
Sept 18	3. Cell Structure and Function		
Sept 25			
	Mastering Assignments-Chap. 1, 3 & 4 – To be completed before		
	11:55pm, Thurs, Sept 28 <sup>th</sup>		
	Exam 1 - To be completed at HCC Testing Center Sept 29 <sup>th</sup> - Oct 1 <sup>st</sup>		
Oct 2	6. Microbial Nutrition and Growth		
Oct 9	7. Microbial Genetics		
Oct 16	t 16 8. Recombinant DNA Technology		
	Mastering Assignment-Chap. 6, 7 & 8 – To be completed before		
	11:55pm, Fri, Oct 20 <sup>th</sup>		
	<b>Exam 2</b> - To be completed online before 5:00 pm, Sat, Oct 21 <sup>st</sup>		
Oct 23	9. Controlling Microbial Growth in the Environment		
	10. Controlling Microbial Growth in the Body: Antimicrobial Drugs		
Oct 30 11. Characterizing and Classifying Prokaryotes			
	Deadline to withdraw: 4:30 pm, Friday Nov 3, 2017		
Nov 6	12. Characterizing and Classifying Eukaryotes		
	Mastering Assignments-Chap. 9, 10, 11 & 12 – To be completed before		
	11:55pm, Thurs, Nov 9 <sup>th</sup>		
	Exam 3 - To be completed at HCC Testing Center Nov 10 <sup>th</sup> - Nov 12 <sup>th</sup>		
Nov 13	13. Characterizing and Classifying Viruses, Viroids and Prions		
Nov 20	14. Infections, Infectious Diseases, and Epidemiology		
Nov 27	15. Innate Immunity		
	16. Adaptive Immunity		
Dec 4	Mastering Assignment-Chap. 13, 14, 15 & 16–11:55pm, Mon, Dec 4 <sup>th</sup>		
	<b>Exam 4</b> – To be completed online before 5:00 pm, Tues, Dec 5 <sup>th</sup>		
	Mandatory Departmental Final Comprehensive Exam - To be		
	completed at HCC Testing Center Dec 8 <sup>th</sup> - Dec 10 <sup>th</sup>		

\*Chapters 2 and 5 are a review of General Biology information. Students enrolled in BIOL 2320 are recommended to review these chapters ahead of time to better prepare themselves for this course. A reference to the information in these chapters will be made when needed in other chapters.

#### Student Learning Objectives (SLOs)

- 1. Describe distinctive characteristics and diverse growth requirements of prokaryotic organisms compared to eukaryotic organisms.
- 2. Provide examples of the impact of microorganisms on agriculture, environment, ecosystem, energy, and human health, including biofilms.

- 3. Distinguish between mechanisms of physical and chemical agents to control microbial populations.
- 4. Explain the unique characteristics of bacterial metabolism and bacterial genetics.
- 5. Describe evidence for the evolution of cells, organelles, and major metabolic pathways from early prokaryotes and how phylogenetic trees reflect evolutionary relationships.
- 6. Compare characteristics and replication of acellular infectious agents (viruses and prions) with characteristics and reproduction of cellular infectious agents (prokaryotes and eukaryotes).
- 7. Describe functions of host defenses and the immune system in combating infectious diseases and explain how immunizations protect against specific diseases.
- 8. Explain transmission and virulence mechanisms of cellular and acellular infectious agents.

#### **Student Responsibility**

You are responsible for buying your textbook and Pearson Mastering Access Code in a timely manner. Your first day of the semester is September 11<sup>th</sup>. You must have all of the above by then. Buying textbook online or at another campus may delay your start. You are also encouraged to get the optional study guide. The semester schedule is already provided to you and all exams and mandatory Pearson Mastering Assignments are available for multiple days. You must complete them in a timely manner. No accommodations will be made if you miss them due to whatever reason....personal, medical or technical.

#### Grading

You will take lecture exams to determine how successful you are at achieving the mastery of course content and skills. You will also complete mandatory assignments on Pearson Mastering website that will help you review the chapter information. For additional resources such as on-campus tutoring, please check on Eagle Online. <u>All assignments and exams must be taken independently. No sharing of information is allowed.</u> If sharing is suspected, a zero score will be given for the exam.

Exams and Quizzes	Grading Scale	
Exam 1 (In-person):	65 points	90 – 100% = A
Exam 2 (Online):	65 points	80 - 89% = B
Exam 3 (In-person):	65 points	70 - 79% = C
Exam 4 (Online):	65 points	60 - 69% = D
Pearson Mastering Assignments (Online):	65 points	Below $60\% = F$
Drop 1 lowest score:	-65 points	
Total Exams/Assignments	260 points	
HCC Departmental Final Exam (In-person):	30 points	
Total:	290 points	

1. Exams will be online or in-person at the HCC Testing Center (Check on the semester schedule). Each exam will be composed of multiple-choice, true-false,

and matching questions. Use textbook and Chapter resources provided on Eagle Online to study for the exams.

- PLEASE READ THIS: There are extra credit questions in all the exams. However, only a maximum of 65 points will be given on any exam. If you score above 65 points in an exam, your score will be changed to 65 maximum. Getting 65 points is like getting 100% on the exam. To calculate your grade on an exam, divide your score by 65 (not by 70) and then multiply by 100.
- 3. For online exams, you will get limited time to complete an exam. Make sure you study ahead and be prepared.....*there will not be any time to look up the answers during the exam!*
- 4. In-person exams will be a proctored, paper pencil, closed book exams, to be taken at one of the HCC Testing Centers.

For information on HCC Testing Centers (locations, dates and times), go to: <u>http://www.hccs.edu/online/student-services/testing-locations/</u> Admit Time:

4:00-7:00 pm, Friday at Central Campus (1st Floor, SJAC Bldg, 1300 Holman) 10:00 am-1:00 pm, Saturday at Spring Branch Campus (1010 W. Sam Houston Pkwy N)

10:00 am-1:00 pm, Sunday at Eastside Campus (Workforce Bldg., 6815 Rustic) \*If you live outside the HCC service area, you are responsible for completing the Proctor Approval Form in the beginning of the semester, arranging a proctor at a local college or university and making sure that the proctor is approved by HCC DE office at least two weeks before the exam date (For details, please <u>CLICK HERE</u>).

5. You will be using Pearson Mastering for this course (<u>www.pearsonmastering.com</u>) that is provided by the publisher of your textbook. On this website, you will get study tools and mandatory online assignments.

If you have purchased a new textbook through HCC bookstore, then the **Access Code** is included in the book.

Otherwise you will need to purchase the access code for Pearson Mastering by going to <u>www.pearsonmastering.com</u>.

If you get temporary access, that will be valid only for two weeks, after which, if you do not pay, your registration will be cancelled.

You will also need the **course ID**: **wagle27455** 

If you have technical difficulty, please contact technology at Pearson: **1-800-677-6337** 

- 6. If you take all the exams and complete Pearson Mastering Assignments, one lowest score will be dropped at the end of the semester. HCC Departmental Final Exam cannot be used as the lowest drop scores.
- 7. If, <u>for whatever reason</u>, you miss one exam, that exam will automatically become your drop exam.
- 8. If, <u>for whatever reason</u>, you miss a second exam, it will be included as a zero score while calculating the final grade.
- 9. PLEASE DO NOT ASK FOR A MAKE-UP OR ADDITIONAL CREDIT OPPORTUNITY IF YOU MISSED OR MESSED UP AN EXAM OR ASSIGNMENT.

10. All grades will be posted on Eagle Online as soon as the exams are graded.

# **Course Policies**

- 1. You must purchase the textbook and get access to Pearson Mastering immediately.
- Once you are registered in the course, you will be required to log into Eagle online (<u>http://eagleonline.hccs.edu</u>) frequently to access study tools, grades, announcements, reminders and emails.
- 3. Your attendance begins on the first day of the semester (August 28<sup>th</sup> but delayed to Sept 11<sup>th</sup>, 2017 due to weather cancellations). Your log-in and completion of the assignments will be tracked during the semester. If you stop attending the course or do not participate in the assessment, you are still responsible for withdrawing from the course before the withdrawal deadline (4:30 pm, Friday, November 3, 2017). Failing to do so can result into an F or FX grade at the end of the semester.
- 4. VERY IMPORTANT EXAMS POLICY: Exams that are conducted online or at HCC testing centers. Even though they are available for multiple days, they do have a firm deadline. Please allow adequate time to complete your exam and to resolve any unanticipated employment or personal problems. Any exam that is not attempted or not completed in time will be considered as a missed exam. Missed exams will be graded as zero score and there are no makeup exam opportunities. In fairness to other students, these missed exams will be counted as 0 scores. When computing your final grade, missed exam zero score will be averaged into the calculation for the final grade. Even though one lowest score is dropped at the end of the semester, more than one missed exam can greatly jeopardize your final grade and may cause you to get an undesirable grade or fail the entire course.

PLEASE BE ADVISED THAT ALL STUDENTS WILL RECEIVE A GRADE OF ZERO FOR MISSED EXAMS. NO ACCOMMODATION IS MADE FOR MISSING OR MESSING AN EXAM FOR WHATEVER REASON.....PERSONAL, WORK RELATED OR TECHNICAL ISSUES. NO MAKE UP EXAM OR EXTRA CREDIT ASSIGNMENTS ARE AVAILABLE.

5. All grades will be posted on your Eagle online and can be accessed 24/7.

# Harvey Flood Impact

"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." Statement from Dr. Norma Perez, Interim Vice Chancellor for Instructional Services

# **HCC Policy Statement - ADA**

# Services to Students with Disabilities

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at the respective college at the beginning of each semester. Faculty is authorized to provide only the accommodations requested by the Disability Support Services Office.

To visit the ADA Web site, please visit

www.hccs.edu then click Future students, scroll down the page and click on the words Disability Information.

#### HCC Policy Statement: Academic Honesty

# <u>All assignments and exams must be completed independently. No sharing of information is allowed. If sharing is suspected, a zero score will be given for the exam.</u>

A student who is academically dishonest is, by definition, not showing that the coursework has been learned, and that student is claiming an advantage not available to other students. The professor is responsible for measuring each student's individual achievements and also for ensuring that all students compete on a level playing field. Thus, in our system, the professor has teaching, grading, and enforcement roles. You are expected to be familiar with the College's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. "Scholastic dishonesty": includes, but is not limited to, cheating on a test, plagiarism, and collusion.

Cheating on a test includes:

- Copying from another students' test paper;
- Using materials not authorized by the person giving the test;
- Collaborating with another student during a test without authorization;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of a test that has not been administered;
- Bribing another person to obtain a test that is to be administered.

<u>Plagiarism</u> means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

<u>Collusion</u> mean the unauthorized collaboration with another person in preparing written work offered for credit. Possible punishments for academic dishonesty may include a grade of 0 or F in the particular assignment, failure in the course, and/or recommendation for probation or dismissal from the College System. (See the Student Handbook)

# **HCC Policy Statements**

Class Attendance –It is important that you log into Eagle online during the first week of the semester and then 2-3 times each week! Participating regularly is the best way to succeed in this class. Research has shown that the single most important factor in student success is attendance. Class attendance is checked, tracked, and reported to the business office. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences.

# HCC Course Withdrawal Policy

Beginning Fall 2007, the State of Texas imposes penalties on students who drop courses excessively. Students are limited to no more than SIX total course withdrawals throughout their educational career at a Texas public college or university. To help you avoid having to drop/withdraw from any class, contact your DE professor regarding your academic performance. You may also want to contact your DE

counselor to learn about helpful HCC resources (e.g. online tutoring, child care, financial aid, job placement, etc.).

#### How to Drop

• If a student decides to drop or withdraw from a class upon careful review of other options, the student can drop online prior to the deadline through their HCC Student Center.

https://hccsaweb.hccs.edu:8080/psp/csprd/?cmd=login&languageCd=ENG

- HCC and/or instructors may drop students for excessive absences without notification (see Class Attendance below).
- Students should check HCC's Academic Calendar by Term for drop/withdrawal dates and deadlines: <u>http://www.hccs.edu</u> → Current Students → Calendar-Academic → Select specific semester. Classes of other duration (mini-term, flex-entry, 8-weeks, etc.) may have different final withdrawal deadlines. Please contact the HCC Registrar's Office at

713.718.8500 to determine mini-term class withdrawal deadlines.

If you do not withdraw before the deadline, you will receive the grade that you are making in the class as your final grade.

#### **Class Attendance**

As stated in the HCC Catalog, all students are expected to participate in the course activities on regular basis. You need to log into Eagle Online and Pearson Mastering and complete all the exams and assignments in a timely manner. Although it is the responsibility of the student to drop a course for non-attendance, the instructor also has the authority to block a student from accessing Eagle online, and/or to drop a student for excessive absences or failure to participate regularly.

# **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. Since January 1, 2003, international students are restricted in the number of distance education courses that they may take during each semester. ONLY ONE online/distance education class may be counted towards the enrollment requirement for International Students per semester. Please contact the International Student Office at 713-718-8520 if you have any questions about your visa status and other transfer issues.

# **Repeat Course Fee**

The State of Texas encourages students to complete college without having to repeat failed classes. To increase student success, students who repeat the same course more than twice, are required to pay extra tuition. The purpose of this extra tuition fee is to encourage students to pass their courses and to graduate. Effective fall 2006, HCC will charge a higher tuition rate to students registering the third or subsequent time for a course. 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.

#### **Classroom Behavior**

As your professor and as a student in this class, it is our shared responsibility to develop and maintain a positive learning environment for everyone. Your professor takes this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are asked to respect the learning needs of your classmates and assist your professor achieve this critical goal.

#### **Campus Carry Law**

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 <a href="http://www.hccs.edu/district/departments/police/campus-carry/">http://www.hccs.edu/district/departments/police/campus-carry/</a>.

#### Title IX and Sex Descrimination (US Department of Education)

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

#### **Use of Course Contents**

As a student active in the learning community of this course, it is your responsibility to be respectful of the learning tools provided to you by your professor. To show respect, you will not copy or share the contents with others unless you receive permission from the professor.

To be successful in this class, it is the student's responsibility to:

- Participate in course activities
- Read and comprehend the instructional materials (lab manual and lab tools provided on Blackboard)
- Complete the required assignments and exams
- Ask for help when there is a question and get tutoring provided free by the college