

Microbiology 3003

Instructor: TBA
Phone: TBA
E-mail: TBA

Meeting time: TBA
Class Location: TBA

Office hours: TBA

Statement About On-line and Hybrid Courses in Biology

We are aware that this instructional mode can be stressful and brings new worries, but also new opportunities. The faculty in the Biology Department pledge to work to accommodate student needs for learning—we also expect students to work with us. Here are some guidelines:

1. As usual, individual course policies, including attendance, schedules, grade calculation rubrics, etc., will be listed in the course syllabus. PLEASE READ THE SYLLABUS BEFORE EMAILING QUESTIONS.

2. Most courses are being offered as “Synchronous,” which means that the instructors expect students to be available at specific times to engage in discussions, workshops, lab exercises and quizzes. The advantage of synchronous learning is that students interact with each other and with the instructor, both key elements for understanding the course material.

With synchronous courses:

1. The instructor may take attendance, award marks for attendance, or penalize students for unexcused absences. Absentee and participation policies and details about grading will be described in the course syllabus.
2. We are all aware that **internet access and connectivity issues** occur, usually at the most inconvenient time. Instructors will continue to make allowances for legitimate reasons. If you have connectivity issues during an exam, quiz, or presentation, take a screen shot and email it to your instructor within 24 hours with an explanation.
3. BIOL 3004 will be hybrid: each student is expected to attend 3 on-campus sessions. We are working hard to ensure the safety of these sessions, which will be later in the semester.

3. Most courses will require the use of a camera to facilitate discussions and ensure fairness on exams. By signing up for these courses, you have given your consent for camera use. If there are exceptions to this policy, they are noted in the course syllabus. Requests for personal exemptions from the Camera requirement must be emailed to biology_exception@brooklyn.cuny.edu .

3. Exam policies: We are all aware that issues of copying, consultation, and other forms of cheating are easier with online examinations. A small number of people engaged in cheating can ruin all the honest work that the majority of students do to learn the course material. So to minimize this problem, here are several policies:

1. It is the right and duty of the instructor to schedule exams and quizzes (except for the final exam, which will be scheduled by the College). Exams must be taken in the time limits specified for each exam.
2. Absence from an exam will be treated as described in the course syllabus, and any make-up exam policy will also be described in the course syllabus.

3. **It is the right and duty of the instructor to determine the format and content of all course exams.**

4. **All assignments will be due at the specified time.** Extension requests will be considered by the instructor, and may or may not be granted at the instructor's discretion.

5. **We understand that emergency situations after the Withdrawal date might make it impossible to complete a course.** Under these circumstances, a grade of IN(complete) *may* be issued in *some* courses. However, some courses (especially lab courses) do not lend themselves to offering make-up activities, meaning that some students may still fail the course despite the best intentions of the department. In such cases, **you should petition the BC Committee on Course and Standing for a retroactive grade of W**, which carries no implication of failure and no GPA penalty.

6. Appeals Policy of the Biology Department

We will only consider appeals after you have addressed the issue to the instructor and received what you consider an inadequate reply or have had no reply within seven days after you contacted the instructor. Some additional considerations:

- Appeals regarding timing conflicts of exams may be considered **only** if there is evidence of the conflict based on academic issues.
- We will not consider any appeals about exam scheduling, format, or content. Those are determined only by the instructor.
- We will only consider exam-grading appeals if you can demonstrate that your answers were incorrectly marked.

If you wish to file an appeal, fill out the Biology Department appeal form:

<http://www.brooklyn.cuny.edu/web/academics/schools/naturalsciences/undergraduate/biology/fa112020/student-concern-form.php>

- **We will not consider appeals from the Dean, Provost, President, Parent, Chancellor, Mayor, Governor,** or other officials unless the Biology Department appeal form has been filled and submitted.

Microbiology (BIOL 3003) Course Summary:

This course is an introduction to the diversity of microorganisms, their structure, their metabolism (including the molecular mechanisms underlying their growth and replication), and the composition and dynamics of microbial communities associated with humans and communities from the environment. The course will discuss the influence of microorganisms on: 1) human health and disease, 2) the implementation of effective hygienic practices, 3) the development of public health institutions and infrastructure, 4) bioengineering and biotechnology and 5) the environment. The course will examine current health, environmental, agricultural, and technological issues that are closely tied to the field of microbiology.

Learning Goals and Objectives:

Following completion of the course students should be able to describe the most important characteristics of the major classes of microorganisms, including, bacteria, viruses, fungi, and algae. Students should be able to describe the cellular, molecular and biochemical differences (and similarities) between prokaryotes and eukaryotes. Students should be able to give examples of specific microorganisms, the environmental niches they occupy, and what special cellular, molecular, or biochemical features allow them to thrive in those niches. Students should be able

to provide specific examples of bacterial, viral and fungal pathogens, the diseases that they cause, and the virulence mechanisms they employ to evade the human immune responses. Students should be familiar with the experimental contributions to the field made by prominent microbiologists, cell biologists, immunologists, biochemists and ecologists. At the completion of the course students should feel prepared for advanced level coursework in microbiology, infectious diseases and immunology, epidemiology and public health, biotechnology, or environmental sciences. Students should finish the course with an appreciation and understanding of the fundamental role microorganisms play in daily life and how they have shaped culture and society throughout history.

Required Textbook:

Microbiology: A Human Perspective Nester *et al.*, 9th edition, McGraw-Hill
By Denise Anderson and Sarah Salm and Deborah Allen
ISBN10: 125970999X
ISBN13: 9781259709999

Note on textbook: I will be using the 9th edition. You can use older editions of the textbook (7th and 8th editions are pretty similar to the 9th edition), or International or e-book versions of the textbook. Keep in mind, however, if you use a version of the textbook that is not the 9th edition you may find that some of the figures, tables and page numbers could be different from the ones in I use in class or in PPTs. You will still be responsible for whatever I cover in class or assign even if it is not in the edition you are using.

Grading:

<u>Component</u>	<u>Percent of final grade</u>
Quizzes	15%
Assignments.....	10%
First midterm exam.....	25%
Second midterm exam.....	25%
Final Exam.....	25%

Exam format:

The two midterms and the final exam will be timed tests given during the scheduled class time or during exam week at the time scheduled by the Brooklyn College. The midterms will be given online or in-person and the final exam will be in person. The exam questions will be mostly multiple choice and shot answer format.

Exam schedule:

- a. **Midterm exams*:** TBA
- b. **Final Exam:** TBA

***Students must take the midterm and final exams at the scheduled times.**

If you are absent from a midterm exam for any reason, you will be required to take a *comprehensive* final exam for the combined weight of the midterm and final. There are no make-up midterm exams. DO NOT ask to take a midterm or final exam at any time other than the scheduled date and time.

Quiz format:

There will be quizzes assigned online (via BlackBoard or Google) and there may be pop-quizzes during class. These will be short quizzes, featuring multiple choice or short-answer questions based on the material covered in that day's class or recent classes. There will be NO make-up quizzes. Your two lowest quiz scores will be dropped from the calculation for your quiz average. This will account for any quizzes you miss for legitimate absences.

Tips for Effectively Studying and Preparing for Quizzes and Exams

Students should expect to devote 5-7 hours of focused studying outside of class for every hour in class (~12 hours per week). Students should come to class having read the assigned materials and prepared to ask and answer questions. There are several useful resources you have for this class:

- i. Lecture videos
- ii. Textbook
- iii. Power Point Presentations On-line
- iv. Additional resources (videos, simulations, articles, news and views, TWiV)
- v. End-of-chapter questions in textbook
- vi. Office Hours

I recommend that prior to each class you follow these steps:

- 1) Read the **key terms** and **learning outcomes** from each assigned chapter to see what concepts/material are being stressed.
- 2) Read the assigned textbook chapter. Take notes on your reading. Write down any questions you have and make note of concepts that you find confusing.
- 3) Read assigned articles. Take notes on your reading. Write down any questions you have and make note of concepts that you find confusing.
- 4) Come to class via Zoom *on time* and with your questions written down. If your questions are not addressed during the class, make sure you ask your questions during class. If you do not ask your questions during class then come to *office hours* with your questions.
- 5) After class re-read the *textbook* chapter and go through the *Power Point* presentation again. Write down any new questions you have and make note of concepts that you still find confusing. Make sure you find the answer to the remaining questions by asking in the next class, coming to *office hours*, or answering them with classmates.
- 6) Make sure you are comfortable with any new terms or definitions that were introduced in the chapter material or lecture.
- 7) The exams will consist of questions that are very similar to the questions at the end of the chapters. You should prepare written, correct, complete, answers for all of the questions in the pool and at the end of the chapters. Work with other students to confirm that your answers are correct and complete. If you cannot find the answers to certain questions, or you are unsure if your answer is correct for a certain question, come to office hours to check and make certain you are on the right track.

- 8) Spend a few days before the actual exam going over your written answers so you can answer quickly during the exam itself.
- 9) Be sure to come to every class *prepared* and *on time*. There may be quizzes and assignments that contribute to your grade given during class time. In addition, during class is the best time to ask any questions you have on the course material.

Center for Disability Notice:

In order to receive disability-related academic accommodations students must first be registered with the Center for Student Disability Services. Students who have a documented disability or suspect they may have a disability are invited to set up an appointment with the Director of the Center for Student Disability Services, Ms. Valerie Stewart-Lovell at (718) 951-5538. If you have already registered with the Center for Student Disability Services, please provide your professor with the course accommodation form and discuss your specific accommodation with him/her.

University's policy on Academic Integrity:

The faculty and administration of Brooklyn College support an environment free from cheating and plagiarism. Each student is responsible for being aware of what constitutes cheating and plagiarism and for avoiding both. The complete text of the CUNY Academic Integrity Policy and the Brooklyn College procedure for policy implementation can be found at www.brooklyn.cuny.edu/bc/policies. If a faculty member suspects a violation of academic integrity and, upon investigation, confirms that violation, or if the student admits the violation, the faculty member MUST report the violation.

Student Bereavement Policy:

<http://www.brooklyn.cuny.edu/web/about/initiatives/policies/bereavement.php>