BIOL1010 BIOLOGY THE STUDY OF LIFE

BROOKLYN COLLEGE
Department of Biology

Course Title/Section	**Biology for Today's World**
Course #	**BIOL1010**
Credit Hours	3
Term	TBA
Prerequisites	none
Class Meets	TBA
Blackboard Collaborate/ Zoom Link	TBA

COURSE DESCRIPTION AND LEARNING OUTCOMES

Course Description	Biology in today's world for non-science majors. Role of biology in people's lives. Physical structure, properties, and principles that apply to all living things. Integration of biological science into daily events. The molecules found in living organisms. Cell structure, molecular biology and evolution. Satisfies Pathways Required Core Life and Physical Sciences requirement. (Not open to students who are enrolled in or have completed any course in biology or who have completed Core Studies 8.1 or CORC 1321).

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Student Learning Outcomes and Assessment Methods	By the end of the Required Common Core and Flexible Core Scientific World Courses, a student should be able to 1. Gather, interpret, and assess information from a variety of sources and points of view. 2. Evaluate evidence and arguments critically or analytically. 3. Produce well-reasoned written or oral arguments using evidence to support conclusions. 4. Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world, including, but not limited to: computer science, history of science, life and physical sciences, linguistics, logic, mathematics, psychology, statistics, and technology-related studies. 5. Demonstrate how tools of science, mathematics, technology, or formal analysis can be used to analyze problems and develop solutions. 6. Articulate and evaluate the empirical evidence supporting a scientific or formal theory. 7. Articulate and evaluate the impact of technologies and scientific discoveries on the contemporary world, such as issues of personal privacy, security, or ethical responsibilities. 8. Understand the scientific principles underlying matters of policy or public concern in which science plays a role. **<u>Scientific Literacy Outcomes for this course:</u>** 1. Use the scientific method to evaluate historical and contemporary issues. 2. Understand core scientific concepts and their appropriate terminology. Specific Outcomes for the Class Material 1. Identify the steps of the scientific method. 2. Recognize the major biological molecules and other chemical components and identify at least one role for each major class of molecules. 3. Recognize the structures and describe the function of cells and the key cellular components and processes. 4. Explain the central role of DNA and RNA in the functioning of the cell. 5. Identify the stages of the cell cycle, mitosis, and meiosis. 6. Perform basic genetic crosses using proper terminology and Mendelian principles. 7. Define ways populations may change over time.
Description of Assessment Methods	End of the year project, online lecture assignments (Macmillan), virtual simulation labs with different pre- and post-lab assessments (Macmillan), a midterm and a final exam. Every single assessment method mentioned above is mandatory. ***All assessment methods will count towards the final grade calculation and must be taken by all students. No exceptions! If you miss an assignment, you will be marked zero for that assignment.***

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COURSE REQUIREMENTS

Instructional Methods	This is a Hybrid course. There are sets of online assignments in Macmillan for each chapter/unit. The labs sessions are online assessed via collaborate or Zoom link, and the lab assignments and virtual labs are all via your Macmillan account. You will need to register for your Macmillan account separately for Lab and Lecture and log into their system with your school email (not personal emails) and use the same email for communication.
Lecture	Each chapter will be covered with a synchronous hybrid lecture. 8/28 (WEEK 1), 10/23 (WEEK 7), 10/30 (WEEK 8-MIDTERM), 12/11 (WEEK 14) & 12/18 (WEEK 15FINAL). The lecture is supplemented by the Macmillan assignments for each chapter. You will have to pay for access to the Macmillan portal. There will be a **Midterm** and **Final Exam** for this course which will be administered by the lecture professor. The materials for the exams **are not** cumulative.
Lab	The class code for lab ends in B. **Project: Details will be explained by lab instructor**. **The project is worth 10% of the total grade it must be completed, otherwise your course grade will be an automatic F.** **Lab 11 labs** = 44%, 4% each Labs will be a combination of virtual simulations and assignments. **You must complete all 11 lab assignments.** **The instructor assigned to your section in CUNY First grades your project and labs. Please address any questions or comments directly to your instructor.**
Attendance	This class is a hybrid class. **All students need to be present in-person on the first day and also on the days mentioned above. Going ahead all students need to be present during the class session throughout the entire time of the class as mentioned on CUNYFirst**. Attendance is recorded for every class session. If you can't attend a class due to an emergency, please let the instructor know ahead of time by sending an email and mentioning the reason for absence. No more than 2 sessions will be excused, and this is applicable for both lecture and lab.
Grade Points	Macmillan online assignments = 20% Project = 10% Midterm & Finals = 20%; (10% each) Lab 11 labs = 44%, (4% each) Attendance = 6% (3%: lab+3%: lecture)
Grades	A+: 100-97; A 96-94; A- 93-90 B+ 89-87; B 86-84; B- 83-80 C+ 79-77; C 76-74; C- 73-70 D+ 69-67; D 66-64 D- 63-60 F: below 60

COURSE MATERIALS

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Course Materials	Author	Title (Edition)	Pub. Year	Publisher or Website	Where to buy/log on
E-Book	Jay Phelan	What Is Life? A Guide to Biology with Physiology (Fifth Edition)	2021	Macmillan	It is important for all students to buy the course and not opt for the trial version to make sure you can access all materials including assignments and homework which count towards the final grade **ISBN: 9781319539825** https://achieve.macmillanlearning.com/courses/oqn23k
Loose-Leaf Version	Jay Phelan	What Is Life? A Guide to Biology with	2021	Macmillan	**ISBN: 9781319535292**
		Physiology (Fifth Edition)			
Lab material		Lab Simulations for Biology 2.0			It is important for all students to buy the course and not opt for the trial version to make sure you can access all materials including assignments and homework which count towards the final grade **ISBN: 9781319539832** **Your lab instructor will provide the course registration link**

Biology 1010 Spring 2023
Anticipated Lecture and Laboratory Schedule (Subject to change)

Week	Date	Lecture Topic (From Phelan: What is Life)	Ch	Lecture assignment due	Corresponding Achieve Lab
1	08/28/2023	Go Over syllabus/Explain requirements of the course and procurement of the e-book and access to assignments			Welcome to Achieve/Lab Safety/Introduction to Lab Simulations
2	09/11/2023	Scientific Thinking	1		Scientific Method
3	09/18/2023	Chemistry of Biology	2		Acids, Bases and pH buffers/Enzymes
4	10/02/2023	Molecules of life	3		Biological molecules

5	10/10/2023	Cells, Energy	4, 5		Cell Structure and Function
6	10/16/2023	Microbe Diversification	15		Bacteria/Antibiotic Sensitivity
7	10/23/2023	Plant Structure and Nutrient Transport/Review for Midterm	19		Plant Structure and Function/Photosynthesis
8	10/30/2023	Midterm Exam			Project discussion
9	11/06/2023	DNA and Gene Expression	6		DNA/PCR
10	11/13/2023	Chromosomes and Cell Division	8		Mitosis
11	11/20/2023	Genes and Inheritance	9		Genetics of Corn
12	11/27/2023	Biotechnology	7		Nucleic Acid assays/Regulation of Gene expression
13	12/04/2023	Evolution and Natural Selection	10		Evolution/ Natural Selection
14	12/11/2023	Immunity and Health /Review for Final Exam	27		Presentation of the Final Project
15	12/18/2023	Final Exam			

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COURSE POLICIES

E-mail	All emails must be sent from your Brooklyn College account to the instructor's Brooklyn College email. Emails sent to Lecture or Lab Instructors in their personal accounts will not be entertained. Brooklyn College email should be used for registering to the Macmillan account.
E-mail Etiquette	Instructors are lecturers or professors, assigned by the college to teach a course. They are not your friends. You are expected to write emails with etiquette and respect. Please help us respect you as well, and the first step towards that is **Please address the professors with Prof. (Last name), No use of Miss, Ms, or Mr.**
Order of Contact	For a lab issue, contact the lab instructor for your section before contacting the lecture instructor. If you do not hear from your lab instructor within a week or even after you meet with him/her for the next class, you can contact your lecture instructor. Contact your lecture instructor for Macmillan assignments and lecture related issues. Instructors have many classes to teach and other responsibilities which are equally important. You have to allow an instructor enough time to reply to emails (48 hours at least). **Do not** start emailing the Chair and the Department if you don't hear from them right away. Emails are not text messages, please respect and allow time for the instructor to answer.
Electronic Issues	Contact the Macmillan and Blackboard help desks first before reaching out to the instructors. Resets for technical issues will only occur if you prove you have solved the issue first. Many times, issues can be solved by using a different browser.
Reasonable Accommodations	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 or csds@brooklyn.cuny.edu. 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. Accommodation requests should be made to each professor separately.
Attendance and Class Participation	Attending and taking notes on the lecture and lab session is strongly recommended. You are encouraged to participate with questions and observations in class. Participation is important for both lecture and lab.
Camera Policy	Cameras may remain off during class. Cameras must be turned on for any exams for proctoring. If you want an exception to this policy, e-mail biology_exeption@brooklyn.cuny.edu with a valid and supported reason.
Code of Academic Honesty	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 implementing that policy can be found at this site: http://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. Using "quizlet" or a similar site to do your labs is considered plagiarism and will be graded accordingly.

Late Work	**Not accepted. You will not be able to get the grade for a particular assignment if it is submitted late.**
Missed Assignments	If you miss a deadline for online work (Lecture and Lab), the score for that assignment is a zero. There are multiple day windows to complete the assignment. Therefore, no deadline resets will be given. It is your responsibility to know and complete the assignment every week.
Academic and other Support Services	The learning center has tutors for BIOL 1010. Contact LC@brooklyn.cuny.edu or (718)951-5821 for tutoring hours and other information. The tutoring center is located in Boylan 1300.
Academic Appeal Process	Information for a grade appeal is located at https://www.brooklyn.cuny.edu/web/off_caass/150325_DeptGradeAppeals.pdf

The schedule and material in this syllabus may be updated or changed upon the instructional needs of students in the course and any changes in the College schedule.

Created by: Prof. S. Samaddar