Bio 141 Essential Biology (4.5 credits)
Syllabus Spring Term – 210935 Bio141
Dr. Meshagae Hunte-Brown

Course Description: This course introduces the essential biological concepts needed by contemporary engineering students to make biologically informed decisions throughout their lives and engineering careers. The course focuses on five core biological topics: cells, genetics, evolution, ecology and physiology. Coverage emphasizes concepts essential for understanding modern biology with specific applications to societal concerns about biotechnology, health, conservation, biodiversity and bioethics. Evolution will be introduced throughout the course as a unifying theme in understanding molecular biology to communities and ecosystems. Students will gain a basic knowledge of cell structure and metabolism; molecular biology and inheritance; animal structure and function and how biological diversity evolves and the effect of human impacts on the environment.

Text : Custom version Biology: The Core with Physiology. Simon. Includes access card (for Mastering Biology - for compulsory activities), lab manual as well as bundled Recitation Manual. This package is ONLY available at Drexel's Bookstore. There will be a link in Learn that you will use to directly access your Pearson Mastering Biology account.

**In light of the changes made to course delivery because of COVID-19, we will not be using the lab and recitation portion of the text as recitation nd lab activities will now be online simulation delivered through LABSTER

LABSTER: Included with the course. Online lab simulations and activities.

Format of the Course:

- 3 hours of lecture/week (via video lectures in Learn)
- 1 hour of recitation/week (via LABSTER)
- 2 hours of lab every week (via LABSTER)

Overall Goals for the Course:

Upon completion of this course, it is anticipated that you will be able to understand:

- The major molecules that make up cells, basic cell structure & function, and how they harvest chemical energy through Cellular Respiration or Photosynthesis
- How cells divide and replicate and the fundamental principles of inheritance
- The basics of molecular biology of gene and their regulation and the application of techniques to biotechnology
- How populations and biological diversity evolves, the evidence for evolution
- The principles governing communities and ecosystems and the human impact on the Environment
- The principles of the functioning of the human body

On a more global scale it is hoped that you will be able to:

- Discuss the social, ethical and ecological implications of Biology and Biotechnology
- Make informed decisions when interacting with biological entities such as pharmaceutical and medical products, genetically modified food etc.
- Serve as an informational resource to your family and friends on the subject of Biology, Biotechnology and the Environment

Grading Assessment: MUST HAVE CLICKER FOR MIDTERMS AND FINAL

Homework	15% **(delivered weekly via Mastering Biology)**
Midterms (3)	30% **(delivered via Mastering Biology in weeks 3, 5 and 7)**
Final Exam	20% **(delivered via Mastering Biology in Finals week)**
Recitations (9)	15% **(delivered via LABSTER)**
Laboratory (10)	20% **(delivered via LABSTER)**

You must pass every component of the course to pass the course overall
Your lecture material will be available on LEARN. You need to complete the "Acknowledgement of Course Rules' Quiz and score 1/1 before you have access to the course material which is under the Learning Modules button on the Learn page.

Guaranteed Grading Scale

A+ = 98-100	B+ = 88-89.9	C+ = 78-79.9	D+ = 68-69.9
A = 92-97.9	B = 82-87.9	C = 72-77.9	D = 60-67.9
A- = 90-91.9	B- = 80-81.9	C- = 70-71.9	
F = <60			

Communication:

All emails are to be sent via LEARN. If you are unfamiliar with how to do this, please contact me immediately following the first lecture. You may also seek assistance from IRT.

Dr. Brown will respond to emails within 1 business day, (i.e. between the hours of 8am – 5pm, Monday to Friday), emails received in the late evening, as well as those received on the weekend will be answered on the next business day. This response policy also applies to any voicemails received. Any class-wide announcements, including changes to course set up or evaluation are also going to made via LEARN

Expectations:

Lecture:

You are expected to view the video lectures and answer the embedded questions. You are responsible for learning any class material delivered through lectures

Online Laboratories:

These will be delivered via LABSTER. You are expected to complete the labs by their due date including the embedded questions. Each lab simulation has a feedback survey at the end, LABSTER requires you to complete them to push your grades to Learn.

Online Recitations:

These will also be delivered via LABSTER. You are expected to complete the labs by their due date including the embedded questions. Each lab simulation has a feedback survey at the end, LABSTER requires you to complete them to push your grades to Learn.

Academic Honesty:

- **The Department of Biology has a ZERO TOLERANCE policy towards FABRICATION, CHEATING, and ACADEMIC MISCONDUCT. For this reason the Department of Biology has elected to impose the MAXIMUM PENALTY for cases of fabrication, cheating and academic misconduct. IF an act of fabrication, cheating or academic misconduct are determined to have occurred in a course within the department after consultation between the student, faculty member and representative from the department (Department Head, or Assistant or Associate Department Head) the penalty will be FAILURE FOR THE ENTIRE COURSE with the inability to withdraw from the course. This penalty will be applied for first and all violations.**

- Cheating is an extremely serious breach of academic integrity. Students who cheat or participate in cheating will be reported to the University's Office of Judicial Affairs for disciplinary action. NO EXCEPTIONS.
- **Plagiarism** is considered to be equivalent to cheating since you are copying someone else's work without giving them due credit, and will be dealt with severely. Cases of plagiarism will be dealt with on a case by case basis with the sanction administered to be in accordance with the severity of the plagiarism, but may also result in failure of the course or other sanctions listed above.

Drexel Academic policies

Drexel's academic policies are strictly adhered to and students are expected to familiarize themselves with all such policies. Links to specific policies are as follows:

Academic Integrity, Plagiarism and Cheating policy:

http://www.drexel.edu/provost/policies/academic_dishonesty.asp
http://drexel.edu/studentlife/judicial/honesty.html

Students with Disabilities:

Current AVL and accommodation letters need to be presented BEFORE accommodations can be made.

http://www.drexel.edu/ods/student_reg.html

For information on dropping courses, please visit:

http://www.drexel.edu/provost/policies/course_drop.asp

Academic Expectations:

- Students should be familiar with the policies, schedule and requirements of this course as included in this syllabus
- Students are responsible for any material covered in lecture, the corresponding material in the textbook, and any supplementary materials provided by the Instructor or TA.
- Students are expected to review the assigned reading material. To successfully complete this course, you will need to review all of the assigned reading material, videos and online assignments on your own and be prepared for any questions that may arise from it.
- Exams will be given in weeks 3, 5 and 7 via Mastering Biology.
- Make-up exams or exams given earlier than scheduled will be given only under extenuating circumstances [travel is not usually considered an extenuating circumstance]. University policy dictates that the only excuse for missing an exam is a serious illness, a documented death, a documented athletic event, an approved Religious observance or an unavoidable accident. If a make up exam is deemed appropriate, it must be taken **within 3days of** the original exam and may be of a **different format** from the original version, such as short answer or oral formats. Only ONE makeup is permitted per term.
- Lecture review, Recitation and Laboratory participation ares MANDATORY!
- Unless there ae extremely extenuating circumstances, no incompletes will be given, so please plan on giving the course the required attention and effort to do well.

Tentative Lecture Schedule for Spring Term

Week 1: Intro, Chap 2 and 3 – Cells and the Chemistry of Life

Week 2: Chap 4 – Energy and Life

Week 3: Chap 5 – Chromosomes and Inheritance

Week 4: Chap 6 – DNA: The molecule of life

Week 5: Chap 7 – Darwinian Evolution

Week 6: Chap 12 – Ecology

Week 7: Chap 11 Human Systems – Digestion and Circulation

Week 8: Chap 11 – Human Systems – Immune System

Week 9: Chap 11 – Human Systems – Nervous System and Movement

Lab and Recitation Schedule

Online lab and recitation activities will follow the lecture sequence as outlined above. The activities will be delivered via mastering and are graded for accuracy but must be done to completion (including the survey questions) for your grades to b e pushed into Learn

Extra Credit:

Extra Credit opportunities are built into the course and no other opportunities will be given at the end of the term. I strongly suggest that you take advantage of these opportunities while they are available. They are designed to ultimately help you do well in the course. Your lecture questions embedded in the videos over the course of the term as well your participation on your Mastering Biology website will count towards extra credit points that will be added to your grade at the end of the term. The opportunities are as follows:

Lecture questions: You will be expected to answer questions embedded in the video lectures.

Mastering Biology:

1. The general rule is that a student needs 2hrs of study time per hour of lecture per week to do well. There are 'dynamic study modules' in Mastering Biology. Complete these study modules by the due date to receive extra credit.

Finally, I realize that there is a lot to keep track of. The overview on the following page is to assist you in staying on target with preparing for and handing in all graded items.

Bio141 Overview *subject to change*

Week	Week of	Lecture - Reading and Topic (3hrs per week)	Recitation Activities - LABSTER	Lab Activities - LABSTER	*Homework – Mastering Due on*	*All Midterms administered on Mastering Biology*
1	4/6/2020	Chaps 2 and 3– Cells and the Chemistry of Life	NO RECITATION	Lab Safety Microscopy	**4/14/2020**	
2	4/13/2020	Chap 4 – Energy and Life	Pigment Extraction	Cell Respiration	**4/21/2020**	
3	4/20/2020	Chap 5 - Chromosomes and Inheritance	Mendelian Inheritance	Mitosis Meiosis	**4/28/2020**	*Midterm 1* *Chap 2, 3 and 4* ***Friday Apr 24***
4	4/27/2020	Chap 6 - DNA: The Molecule of Life	Gene Expression	Protein Synthesis	**5/5/2020**	
5	5/4/2020	Chap 7 - Darwinian Evolution	Biodiversity	Evolution	**5/12/2020**	*Midterm 2 – Ch 5, 6 -* ***Friday May 8***
6	5/11/2020	Chap 12 - Ecology	Food web	Population Growth	**5/19/2020**	
7	5/18/2020	Chap 11 – Digestion and Circulation	Thermal Homeostasis	Intestinal Glucose Transport	**5/26/2020**	*Midterm 3 – Ch 7 & 12 –* ***Friday May 22***
8	5/25/2020	Chap 11 – Immune System		Immune System	**6/2/2020**	
9	6/1/2020	Chap 11 – Muscular and Nervous Systems	Action Potential	Sensory Transduction, Skeletal Muscle	**6/9/2020**	
FINALS						***CUMULATIVE FINAL*** ***Friday June 9***

Pearson

Student Registration Instructions
MyLab & Modified Mastering with Blackboard

Enter Your Blackboard Course:

1. Sign in to Blackboard and enter your Blackboard course.
2. Do one of the following:
3. Select the Pearson link in the Content area.
   - Select **Tools** in the left navigation and **Pearson's MyLab & Mastering** on the Tools page. Next, select any course link in the top area of the Pearson's MyLab and Mastering Tools page.

Get Access to Your Pearson Course Content:

1. Enter your Pearson account **username** and **password** to **Link Accounts**.
   You have an account if you have ever used a Pearson MyLab & Mastering product, such as MyMathLab, MyITLab, MySpanishLab, MasteringBiology or MasteringPhysics.
   - If you don't have a Pearson account, select **Create** and follow the instructions.
2. Select an access option:
   - Enter the access code that came with your textbook or was purchased separately from the bookstore.
   - Buy access using a credit card or PayPal account.
   - If available, get temporary access by selecting the link near the bottom of the page.
3. From the You're Done page, select **Go to My Courses**.

Note: We recommend you always enter your MyLab & Modified Mastering course through Blackboard.

Get Your Computer Ready
For the best experience, check the system requirements for your product at:
http://www.pearsonmylabandmastering.com/system-requirements/
Need help?
For help with MyLab & Modified Mastering with Blackboard, go to:
http://help.pearsoncmg.com/mylabmastering/bbi/student/en/index.html

Labster Overview:

Hello, and welcome to Labster! We are really excited to have you using our simulations this upcoming quarter. This document will be your guide to any and all things Labster. If you have any questions, please follow section 3 below!

Section 1: Accessing your Labster simulations

Below is the step by step process to using our simulations:

1. Log in to Blackboard Learn
2. Navigate to your course in the Learn and to the Learning Modules within the course
3. Find the link to the individual simulations
4. Launch the simulation

Section 2: Labster "Best Practices"

1. Use the latest version of Google Chrome or Mozilla Firefox as your browser
2. Clear cache/cookies prior to launching a simulation
    a. How to clear your cache!
3. Make sure that Labster is the only tab open and that you have a strong wifi connection
4. Commonly Asked Student Questions
5. Troubleshooting Labster

Section 3: Contacting Labster Support

If you have any other questions or problems with Labster, please use THIS link to submit a support ticket. Our support team will reach out to you within one business day via email or phone.