



Course syllabus for:
GENERAL BIOLOGY I: BIO 121 section HC2
SPRING 2019

Course Information

Instructor: Dr. Alanna Durkin

Instructor Email: adurkin2@mc3.edu

Course Schedule: Tuesday and Thursday 8:30-11:30AM

Course Location: Central Campus, Science Center, Room 217

Course Prerequisites: MAT011, REA011, ENG011

Office Hours:

Office hours are available by appointment. Please email me to set up a meeting!

Course Description:

A study of the unifying principles which govern the operation of all living things including: biological chemistry, energy, metabolism, cell biology, and genetics. This course is designed for allied health science majors, biotechnology, A.A.S. majors, and other students desiring or requiring this course, a BIO 121/122 sequence, or progression to BIO 151. This course meets General Education Core Goal 2: Analytic Skills and Core Goal 8: Physical & Life Sciences.

Students taking this course anticipate going on to: Bio 122, 131, 140, and/or 151. Please see the MCCC catalog for descriptions of the above continuing courses.

Required Textbooks and Materials:

- **Required textbook:** Campbell Biology Concepts and Connections (Taylor, Simon, Dickey, Hogan, Reece) 9th Edition
- **Access to MasteringBiology.com is required.** An access code is packaged with the new textbook or it can also be purchased separately (see instructions on MasteringBiology.com). Our course ID: durkin65972
- The labs are provided on Blackboard for you to print. There is no lab manual to purchase, but you **MUST PRINT THE LAB WORKSHEET FOR EACH LAB.**

Learning Goals:

1. Evaluate role of science in western and world society.
2. Analyze the concept of evolution by natural selection and the degree of its acceptance by the scientific community.
3. Discuss the impact of scientific and biological discoveries on society.
4. Explain the relationship of atoms, ions, molecules within the living and nonliving universe.
5. Discuss the scope, breadth, and interrelatedness of life on earth.
6. Explain the crucial role of water in biological and nonbiological systems.
7. Analyze the role of cells in organisms and what is unique about the cellular level of biological organization.
8. Analyze the basic processes to of all cells and living organisms.
9. Analyze the distinctiveness of prokaryotic cells and their incredible importance to the biosphere.
10. Apply the scientific method and critical thinking skills to biological and scientific problems.
11. Analyze a complex process to determine the main idea and make connections across concepts in biology.
12. Demonstrate the ability to set up and utilize basic laboratory apparatuses to perform microscopy, chromatography and carry out basic experiments.
13. Support opinions concerning contemporary biological issues utilizing relevant resources.

Course Policies

ATTENDANCE and MAKE UPS

Class attendance is necessary for successful completion of this course. Attendance will be recorded. As indicated in the GRADE DETERMINATION and MAKE UP sections below, there are **no** make-up tests, labs or assignments given, and a zero will be assigned for any assessment or assignment missed. Tardiness can also result in a zero for a quiz or exam, as you will not be given extra time to finish the assessment. There is an assessment and/or lab each class meeting, thus any absence will affect your grade. Missing 2 or more classes may be grounds for failure of the course. Also note that this course has a departmental final exam. In the event of illness or another uncontrollable event, please speak with me regarding your grade.

The departmental final exam is mandatory for each student. Please check the final exam schedule on the portal and plan accordingly. Do not make travel plans for the week of finals, since missing the final will result in a failing grade for the course. In the case of an emergency (for example- medical, judicial, or military) documentation will be required.

ASSIGNMENTS

All assignments will be listed in Blackboard. **Access to Masteringbiology.com is also required. Book chapters must be read before coming to class.** One writing assignment will also be posted on Blackboard later in the semester. A **Lab Quiz** will be assigned on Blackboard for each lab and before the scheduled lab.

Once the lecture is completed for a textbook chapter, **you will have a quiz on that chapter during the following class.** Any exceptions to this rule will be announced in class or on Blackboard.

LABORATORIES

You are required to print and read the lab protocol, and then take the online quiz before performing a lab, and students are required to read and sign “Lab Rules and Guidelines” and give to the instructor prior to the first lab. If the instructor determines that you are not prepared for the lab, you will be asked to stop performing the experiment and will receive a zero for that lab grade. Not only does your lack of preparedness cause extra work for your partner(s), but also in some lab settings, it can be dangerous. Lab experiments will be carried out in groups of 2-3 depending upon the lab. Groups will be assigned by the instructor and rotated for each lab. Your lab grade will reflect participation in the lab as determined by the instructor, lab quiz scores and/or a formal lab.

EXAMS

Review sessions for Unit Exams will be held at the end of class and are no more than 30 minutes in length. This time will be used to answer specific questions and clarify concepts. This time will *not* be used to completely re-teach material that was already covered in class. If you are struggling, seek help right away. Do not wait until the review session.

Each exam is timed. **You must have your student ID number and a No. 2 pencil.** Exams start at the beginning of class. If you are late, you will not be given extra time to complete your exam. Once the exam has started, you may not leave the room until you submit your exam. **There are NO MAKE UPS for exams.** Please plan accordingly. It is good practice to mark your exams on your calendar.

After viewing your grade, **ALL QUIZZES AND EXAMS MUST BE RETURNED TO YOUR INSTRUCTOR.** Failure to return these items results in an IMMEDIATE ZERO.

EXTRA CREDIT

There is **no extra credit** given in this course. All assignments will be assigned to all students. You cannot do an extra assignment to earn extra points in this course.

College Policies

Acceptable Use of Technology

The College views technology and its use in instruction, in service delivery, in advising, in communications as a strategic asset. This value has positioned the College as one of the most technologically advanced community colleges in the country. The College’s commitment to academic freedom and appreciation for creating an environment of free inquiry extends to the electronic information environment. To ensure that the College’s investment in technology promotes free inquiry, innovation, quality learning environments and the creative applications that advance the mission of the College, a strong policy infrastructure for technology use is important. Acceptable use policies preserve the stability and security of our information technology resources, protect the College from inappropriate use, and ensure reasonable accessibility to technology resources for our academic community. These policies govern desktop, network, email, telephone, internet, data security, and software uses of College-managed information technology equipment and resources. The Acceptable Use of Technology policy is available on the College website

Student Academic Code of Ethics

The College provides an environment that fosters critical thinking and judgment. Students adhere to an Academic Code of Ethics by refraining from participation in acts of academic dishonesty. The [Student Academic Code of Ethics policy](#) is available on the College website.

Student Code of Conduct

The purpose of the Student Code of Conduct is to guide students to understand their responsibilities in regard to appropriate behavior and respect for others in the college community. The policy addresses classroom disruptions and removal from the classroom for behavioral issues. It also provides the standards for ensuring the College provides due process to students through the judicial process. The [Student Code of Conduct policies and procedures](#) are found on the College website.

Students are expected to review, understand, and follow all College Policies. The current academic-related policies are in the “Policies” tab on the top of the student’s Blackboard page or on the website under all [College Policies](#)

Withdrawal from the Course

Students initiate the process of course withdrawal after consultation with the instructor and/or an academic advisor/counselor. After the Add/Drop period ends and prior to completion of 60% of the course time, a student wishing to withdraw must submit an official drop/add/withdrawal form. An official grade of “W” (Withdrawal) is assigned to the course. After completion of 60% of the course time and prior to 75% of the course time the student must request and receive permission from the course instructor to withdraw from the course. The instructor completes an online Withdrawal Permission Form and indicates a final course status grade of “W” (Withdrawal). The College’s Registration Calendar outlines specific dates associated with the withdrawal process that must be followed.

Excused Withdrawal

For Excused Withdrawal (“WEX”) due to medical, catastrophic or other circumstances beyond the student’s control, students can request excused withdrawal from a course during the semester after 75% of the course time with supporting documentation. Review of documentation for an Excused Withdrawal will occur by the Division Dean, Program Director or Instructor and a recommendation will be provided to the Provost’s Office. View the [Excused Withdrawal policy](#) on the College website.

Student Withdraw for Military Deployment or Reassignment

The College is required to have a policy and appropriate procedures to assist students who must withdraw from the College due to military deployment or reassignment. This policy applies to both the active military member and his/her spouse [pursuant to PA House Bill No. 1460]. The [Student Withdraw for Military Deployment or Reassignment policy and procedure](#) is available on the College website.

Grading Policy

Five tests will be given in this course. Please note, that no test make-ups are given, thus if you miss a test, that test score will be a zero. The response paper will be described in a supplemental hand out.

Unit Exam Grades (5 Unit exams, each worth 10%. Exams include lab information as well as chapter and lecture)	50%
Cumulative, Departmental Final Exam	20%
In class Content Quizzes	15%
Lab: lab quizzes, lab sheets/reports, and hands on lab practicals	8%
Blackboard quizzes and Masteringbiology.com	5%
Writing assignment	2%

Grade	Criterion	Percentage
A	superior understanding with excellent and distinctive work	>93%
A-		90-92%
B+		87-89%
B	above average understanding with very good work	84-86%
B-		80-83%
C+		77-79%
C	average understanding with good work	70-76%
D	below average, passing but with minimal understanding or completed work	60-69%
F	Not passing *If a student never attends class, a FN will be assigned. If a student stops attending class at any point, a FS will be assigned.	59% and below
AU	Audit. Please see school and course policies.	NA
W	Withdrawal: Please check with your advisor, as withdrawal affects financial aid and graduation. Faculty signature needed from 3/27/19-4/13/19. Faculty signature is provided only when extreme, extenuating circumstance apply and documentation is required. Administrative approval needed for withdrawal after 4/14/19 (Documentation required- for example, a verifiable medical emergency, deployment, or court ordered absence)	NA
I	Incomplete. Please see school and course policy.	NA
XF	Academic Misconduct: Failure due to a violation of Academic Conduct policy. Examples include, but are not limited to: plagiarism or cheating (either giving or receiving answers) on any assessment, lab, paper, report or assignment	NA

Sequence of Topics:

TENTATIVE COURSE OUTLINE AND SCHEDULE

While every effort will be made to remain on schedule, this schedule and syllabus are subject to change. Students will be notified on Blackboard of any changes that are made.

Details are given below for Unit 1 (also on Blackboard), and each subsequent unit's details will be provided on Blackboard just prior to the previous unit's exam.

All assignments/papers are due by the beginning of class on date listed.

Unit 1: Introduction to Biology; Biochemistry; and Evolution

Reading Assignments:

Biology: Exploring Life (Chapter 1)
How Populations Evolve (Chapter 13 sections 13.1-13.6)
Evolutionary History (Sections 1 and 2 from Chapter 15)
The Chemical Basis of Life (Chapter 2)
The Molecules of Cells (Chapter 3)

Lab: Carbohydrates (Saliva) Lab (1/31/19)

Assessments: Chapters 1 and 13 quiz in class on 1/22/19, Chapters 2 and 3 quiz in class on 1/29/19, and Pre-Lab Quiz in class on 1/31/19, and **UNIT 1 Exam in class on 2/5/19.**

General Class information sheets due: The student information sheet will be completed in class on 8/29. The syllabus worksheet (on Blackboard) should each be completed and emailed to me by 10 a.m. on 8/31/18. Read and sign the Lab rules/guidelines sheet and turn in on 9/10/18 to participate in lab.

Assignments (on Masteringbiology.com):

Masteringbiology.com: Chapters 1 and 13 due by 1/22/19, Chapter 2 due by 1/24/19, Chapter 3 due by 1/29/19, and Unit 1 Extras (optional to review for exam).

The Cumulative test option in Mastering should be used to review for exams, but is optional.

Labs (instructions on Blackboard in Unit 1 folder in "Assignments section): Carbohydrates (Saliva) Lab- Print and read lab from file on Blackboard. **If you do not have the lab protocol or have not read it, you will not be allowed to participate in the lab. A lab quiz will be given at the beginning of class on the day of the lab.** During the lab, results will be recorded. Lab material will be included on the Unit 1 Exam.

Unit 2: Cell Biology and Metabolism : Details to be posted on Blackboard

Reading Assignments:

A Tour of the Cell (Chapter 4)
The Working Cell (Ch. 5)

Labs: Microscope: Cells and Tissues Lab (2/7 & 2/12/19)
Osmosis/Diffusion Lab (2/19/19)
Enzyme Lab (2/21/19)

UNIT 2 EXAM ON February 26th, 2019

Unit 3: Photosynthesis and Cellular Respiration

Reading Assignments:

How Cells Harvest Chemical Energy (Chapter 6)
Photosynthesis: Using Light to Make Food (Chapter 7)

Labs: Fermentation Lab (3/5/19)
Photosynthesis Lab (3/12/19)

UNIT 3 EXAM March 14th, 2019

Unit 4: Cellular Reproduction, Inheritance and Gene Pool

Reading Assignments:

The Cellular Basis of Reproduction and Inheritance (Chapter 8)
Patterns of Inheritance (Chapter 9)
Populations, Genes and Evolution (Chapter 13, select sections)

Lab: Cell Division Lab/Lab Practical (3/28/19)

UNIT 4 EXAM ON April 16th, 2019

Unit 5: DNA; Gene Expression and Biotechnology

Reading Assignments:

Molecular Biology of the Gene (Chapter 10)
How Genes Are Controlled (Chapter 11)
DNA Technology and Genomics (Chapter 12)

Lab: Isolation of DNA Lab (4/16/19)
Bacterial Transformation (4/23 & 4/25/19)

UNIT 5 EXAM ON April 30th, 2019

Again, this schedule is tentative. Please check your MCCC email and Blackboard for announcements regarding any changes or updates.

Note: All chapter and section designations are from Reece et al. Lab protocols will be posted on Blackboard and you will need to print and read prior to lab day and bring to class in order to participate in lab.

******The departmental Final Examinations is REQUIRED for this class; please see the college website for dates for final exams. The departmental exam is given to all BIO121 sections at the same time, and the final exam is mandatory for all students taking the course. The link for the final exam schedule can be found in the “Academics” tab on the portal, when you log in. Do not make travel plans prior to confirming the date of the final. Please check the schedule and plan accordingly. ******

Communication

MCCC E-mail and Course Communications

Students are responsible for all communications sent via Blackboard and their MCCC email account. Students are required to use their MCCC email for all email communications at the College.

Emergency Closing/Class Cancellation

In the event of an emergency or weather-related closing, the College provides electronic notification for all students, employees, vendors and community members. All are encouraged to enroll in this free, up-to-the-minute electronic messaging service. Participants select their choice of delivery — cell phone or email. It is free to sign up but standard text messaging rates may apply from your service provider. To sign-up for electronic messaging or to update your current account, sign up through <https://www.mc3.edu/txt>.

All canceled classes will be made up with assignments on Blackboard and/or with institutional make up days (March 18-20, 2019) if needed.

Services for Student

Services for Students with Disabilities

Students with disabilities may be eligible for reasonable accommodations in this course. Please contact the Disability Services Center in College Hall 225 at 215-641-6575 to make an appointment to learn about eligibility and documentation guidelines. At the West Campus, contact the Coordinator of Disability Services in South Hall 147 (Student Success Center) at 610-718-1853. [Services for Students with Disabilities Full Policy](#) is located on the College website.

Tutorial Services

Tutorial Services is a FREE service that helps students develop learning strategies based on their unique learning styles with the goal of creating successful students and independent learners. Tutorial Services helps students achieve academic success by providing in person and online tutoring in course content and study skills. For questions and a full list of [Tutorial Services hours and services](#) visit the website or contact tutoring@mc3.edu.

Library Services

In addition to books and DVDs, the College libraries provide outstanding online offerings, available 24/7 for current students, including: academic research databases, e-books, online journals, and streaming video. Help is available through online chat, in-person appointments, and at our service desks. The libraries also provide a peaceful place to study, use computers, and do research. To access the online library and for contact information, locations, and hours of operation, visit library.mc3.edu.

Basic Needs

Any student who has difficulty accessing resources to meet their basic needs i.e. safety, food and/or stable housing and believes this may affect their performance in the course, is urged to contact the Director of Student Retention and Success, in the Student Success Center, at csmith3@mc3.edu or 215-641-2803 for support.

Registration Calendar

The Registration Calendar is available on the College website.

Statement Regarding Updates to Syllabus

This syllabus is subject to change. Students will be notified of any updates via Blackboard, student email, and/or in class.