BIOLOGY I

Course Syllabus

Biology 2200 **Spring, 2024**

Instructor: Mitch Albers, Office S.3330 Science Center
Office Phone (612) 659-6002, E-mail Address: mitch.albers@minneapolis.edu
Office hours will be held on online via Zoom on T & Th 11am, On Campus S.1200 Lab W 9am & 12pm
Mitch Albers Personal Website: http://www.biocasts.com/mctc/

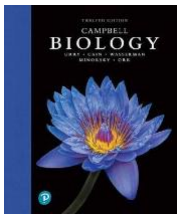
Course Website: Please login to D2L to access the course website: https://minneapolis.learn.minnstate.edu/

Semester Credits: 4

MnTC: Goal Area 3

Prerequisite: Introduction to CHEM 1020 or CHEM 1151 High School Chemistry with a Grade of "C" (2.0) or Higher

Textbooks:



labarchives
Chance Favors the Organized Lab

**Required*

Campbell Biology* eText by Urry, Cain, Wasserman, Minorsky and Reece. Pearson Publishing Co., 12th ed., 2021. This eTextbook is integrated into your D2L BrightSpace in the "Content"→"Materials" area. This format is a significant cost savings and is included into your Minneapolis College BIOL 2200 course registration fee.

MasteringBiology (MB) Online Homework* **MasteringBiology** is now integrated into D2L BrightSpace in the "Content"→"Materials" area. MasteringBiology Homework will be required for each chapter of the textbook. The cost is included into your Minneapolis College BIOL 2200 course registration fee.

LabArchives Online Laboratory Manual* by Mitch Albers, Students are required to set up an account to download and print weekly laboratory exercises and bring to lab**.** Students MUST also purchase a **3-ring binder*** and maintain a Lab Notebook**.** See "News" area of D2L for details on how to register your account.

Lab Safety Goggles* can be purchased in the Minneapolis College Bookstore.

Target Population: Those students of any major, but especially biology or related science majors, nursing students and those who need a transferable, lab-science course.

Course Description This course examines the major concepts of biology and is designed for students majoring in Biology, Nursing, and other science related fields. You will gain an understanding of the scientific method, basic biochemistry, cell biology, bioenergetics, reproduction, development, genetics, biotechnology, and evolution. This course includes two hours of required lab per week, which must be taken on campus.

***Topical Outline*:**
1. Scientific method and process of science
2. Basic chemistry, organic chemistry and biological molecules
3. Cellular structure and function, membrane transport, metabolism and division
4. Genetics, DNA and protein synthesis
5. Evolution

***Learning Outcomes*:**
1. Relate principles of chemistry to life and living organisms
2. Understand how cells are organized and function
3. Recognize how the principles of heredity and the environment affect individual organisms
4. Explain the role of evolution in populations
5. Formulate and test hypotheses through hands on laboratory experimentation

Lecture Information:
Instructor lecture support materials for this course will be supplemented via D2L BrightSpace. Lecture presentation materials are provided to you in different formats to support a variety of learning styles. Accessible in the "Materials"→"Content" area of D2L.

- Detailed Lecture Notes (DLN's) with linked Explainer Videos by chapter - *Complete lecture notes from your textbook.*
- Active Reading Guides (ARG's) – *Complete chapter study guides.*
- YouTube Lecture Videos by chapter.
- Prezi Lecture slides (Two versions are available)
- In-Class lecture notes - *Archives of lectures notes I've given during a traditional lecture class.*
- Online Microsoft PowerPoint presentations by chapter.

You will be responsible for information from these resources and the assigned textbook readings. Please spend some time reviewing these resources at the start of the semester. Pick and choose the learning resources that match your learning style best. You might feel a bit overwhelmed at first as you investigate all the learning resources available to you in this course. *You do **NOT** need to use all of them!*

Class Requirements:
1. There will be three required lecture exams that will consist of 100 points each. No lecture exams are dropped.
2. The 100 point required final exam will be 50% cumulative and 50% covering chapters 17, 22, & 26.
3. LAB IS REQUIRED. Make sure you have registered for a lab section, and you also MUST attend the lab on campus.
4. Weekly MasteringBiology (MB) Textbook Chapter Homework Assignments are required and due every Monday evening at 10:00 p.m. and are calculated into your overall course grade. See below or log into the MB homepage to review how the MB quizzes will be graded.
5. Lab quizzes and post lab assignments are required and are assigned for each lab and will be due on Sunday evenings at 10:00 p.m.
6. Lecture quizzes may be given throughout the semester.
7. Points will also be assigned for a variety of exercises, including (but not limited to) group discussion exercises, Learning Catalytics activities writing and Web assignments. Credit for these assignments will be based on the quality of work, neatness, the timeliness of work (i.e. handing assignment in on time), and the point value possible for the assignment.
8. No audible cellular phones, pagers or smart phones may be accessed on during lecture, lab or during exams. If your personal electronic communication device disrupts class in any way you will be asked to leave the class/lab for that day which could result in your missing work for credit. Use of these types of devices will be accepted with Learning Catalytics in lecture and if a lab procedure calls for using them.
9. Student conduct in the course will follow the Minneapolis College Student Handbook.

Grading Standards:
Final semester grades will be calculated by placing your cumulative point total for the semester on a percentage distribution/"curve" for determination of the grade (see "Grading" below). It is important that you keep track of all points earned throughout the semester on your point tally sheet that is included in this syllabus. By dividing the total points, you have earned by the total points possible, you can calculate your percentage (i.e. 585 points earned/600 points possible = 84 % and would be a "B" grade as per the grading scheme outlined below). The following percentages may be adjusted but are provided to give you a sense of where you stand at any one time during the semester.

Grading:
Students must receive a passing grade (70%) in the lecture portion of this course to receive a grade of C or higher in this course. Students who earn less than 70% in the lecture portion of this course, prior to adding the laboratory points to the final grade, will receive a D or F in this course, even if addition of the laboratory grade brings their total percentage above 70%. Passing grades will be determined by percentages (55% = D, 70% = C, 80% =B, 90%=A) of the 600 estimated total points possible scheduled below. Regular class attendance is essential for success in this course, which means unexcused absences from labs will be detrimental to the student's overall grade. Exam and assignment scores can be viewed by clicking on the "Assessments"→Grades" menu in the D2L lecture course web site. No incomplete (I) grades will be given for missed work. Incomplete grades are for someone who has completed all of the course for lecture and lab satisfactorily and misses the final exam because of an extended, doctor verified illness or legal matter.

Note: *"Instructors don't give grades, students earn them"*

Point Breakdown:

Three Online Lecture Exams (100 points ea.)	300 points
Online Final Exam w/50% comprehensive portion	100 points
MasteringBiology (MB) Chapter HW Assignments	50 points *(MB grading details posted below)*
Online Lab Quizzes / Online Lab Post Assignements	100 "*percentage*" points
Online Lecture Quizzes (These will be announced in D2L) (approx.)	50 points
	600 total points possible

***Note*:** The above breakdown of points is only an estimate; the actual point total may deviate above or below the points scheduled at this time.

MasteringBiology (MB) Chapter HW Assignments Grading: Your MB total score will be converted to percentage and then divided by 2. For example, if you earned 180 points out of 200 possible (180/200 = 0.9 x 100 = 90% / 2 = 45 Final MB Score). This will be the score used in the final calculation of your overall course grade and it will be posted in your D2L online grade book. Students who score 95% or better on their MB Homework will be able to opt out of taking the Adaptive Follow-Up (AFU) Assignments and will automatically earn 5 points.

Lab Totals will be determined by percentage points. Weekly lab quiz scores will be posted in the D2L lab course web site and post lab assignment scores in the LabArchives grade books. I reserve the right to alter the course schedule for the duration of the semester, and to alter the points needed for each grade if I deem it necessary.

Academic Integrity: It is important in your learning process to maintain academic integrity. This means completing all assignments independently and taking on-campus/online exams, chapter tests and assignments in good trust (NO CHEATING). By maintaining academic integrity, you will increase your knowledge and skill, while upholding your personal and societal ethical standards. Any student who plagiarizes another student's work or cheats will either be forced to withdraw or will fail the course…I HAVE A ZERO TOLERANCE RULE. The Minneapolis College Biology Department adheres to the highest standards of academic integrity. Any violations of prohibitions against plagiarism or cheating will be treated with great seriousness, and they risk failure of the course or worse consequences such as expulsion from the college. Consult the Minneapolis College student handbook for advice about avoiding plagiarism/cheating or talk to your instructor about it. If you are aware of any cheating in this course, please contact your instructor. You MUST agree and submit the course Academic Integrity Policy (AIS) form posted in the "Quizzes" area in D2L the first week of the semester in order to continue in this course.

***Required Lecture Attendance Policy*:**
I do not formally take attendance for lecture portion of this course, but I do have some policies related to attendance that you need to be aware of. I use a variety of learning tools in the classroom, including group work, electronic student response systems and writing projects. We will use both synchronous (live) and asynchronous (not live) communication in this course, which does not happen in real-time. In other words, we will communicate asynchronously without needing to have a common day / time available for us to meet online. E-mail is an excellent example of asynchronous communication. So are electronic bulletin boards. I WILL EXPECT that you will be logging into both the lecture and lab D2L announcements and checking your E-mail every day (excluding weekends and holidays) and that you're actively utilizing the online resources in D2L, Pearson MB and LabArchives websites. Announcements regarding the lecture and lab will be posted in the "ANNOUNCEMENTS" area of D2L each week and may be updated throughout the week. Any student attempting to start the online lecture after the drop date will NOT be allowed into the course even if they have registered. If you encounter an emergency that necessitates time away from class, it is your responsibility to contact me immediately and ask for my assistance in planning your return to class and determining the work that needs to be completed. Note: If you need an accommodation due to a learning disability to enable you to fully participate in this course, contact Minneapolis College's Accessibility Resources Center (ARC) office at (612) 659-6730 for assistance.

***Required Lecture Exam Attendance Policy*:**
All lecture exams MUST be completed to pass this course. No lecture exams are dropped, and they all count towards the student's final course grade. Lecture exams administered in this course will be taken either on campus or online or a combination of both. The instructor has the discretion to determine the testing format/scheduling and will communicate each exams details in the "Announcements" area of D2L.
Make-up Lecture Exams: If a student misses a scheduled lecture exam, the student MUST contact the instructor within ten calendar days after the scheduled exam date to request approved to take a make-up exam. The timing, format, and content of all make-up exams is at the instructor's discretion and will differ from the original exam given in class. If approved, all make-up exams will be administered on the last regular class day of the semester in the Minneapolis College Accessibility Resources Center (ARC) office. If a student fails to get approval within the ten days after the scheduled exam date, they will receive a zero (0) score for the missing the exam and no opportunity to make-up the missed exam up and will either 1.) need to withdraw officially from the course or 2.) will not successfully pass the course.

Required Lab Attendance Policy:
Four or more missed online labs which means four missed lab quizzes and lab assignments will result in the automatic withdraw (LDA'd) from the course prior to the drop date or failure if after the drop date. Your laboratory experience and attendance are essential for success in this course. The total points available from the lab is approximately 20% of your course grade. Participation in the lab is NOT optional…it is required. See page 7 for more specific details about the Last Date of Attendance (LDA) Policy for Minneapolis College.

Additional Notes:
1. An option to earn a limited amount of extra credit points will be offered near the end of the semester after the completion of Exam III.
2. Your text, lectures & labs will present biological concepts and principles from an evolutionary perspective the central theme of biology.
3. Some topics of a sexually explicit nature may be covered with aspects of reproduction, gender, meiosis (gametogenesis) and evolution.
4. You will be required to use a computer, hand in computer generated assignments and access the course web sites.
5. You will be required to use D2L-BrightSpace the course learning management web site for both the lecture and lab, e-mail, LabArchives online lab manual and turn-in web based Pearson MasteringBiology(MB) assignments every week throughout the semester.

Where to get Help:
If you have questions about the course or if you're struggling with any aspect of it, contact me as soon as possible. Let's talk it over. I can help. Just send me an E-mail or set-up an appointment to meet with me online or in my on-campus office. In addition, the Academic Success Center (ASC), room T3200 on the 3rd floor of the T building is an invaluable resource. Peer tutors are available by appointment to coach you and help you succeed. We will also offer weekly study group workshop sessions via the Academic Success Center. These sessions have been extremely successful to many Biology 1 students. These sessions allow discussions of the course content with fellow classmates and is facilitated by a lead tutor or peer tutor who has already taken the course. To set-up a tutor appointment in the Minneapolis College ASC, phone (612) 659-6140. Mitch will also hold Online Exam Study Sessions and he will post invitations to these Online Study Sessions in D2L.

TEACHING FOR THINKING

Levels of Thinking based on Bloom's Taxonomy

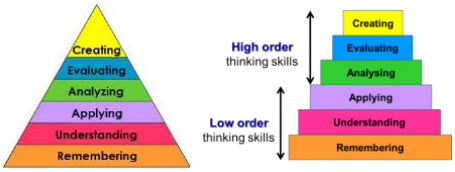
Thinking as to rote memorization is an important part of the learning process. To learn effectively, the learner has to think about the information. The quality on one's thinking can be improved with training. One of the purposes of higher education is to improve the quality of student's thinking. This course will attempt to improve your thinking by requiring you to read, write, ask questions answer questions, work cooperatively with other students, and access a diverse number of electronic learning resources. Why do this? Because your future success in the classroom as well as in your career job will depend on your ability to think critically and solve problems.

When most students are asked, what is thinking?" they are at a loss to speak knowledgeably. You can expect me to attempt to model for you how one goes about thinking about biology during lectures and labs. You will be asked to write responses to questions both individually and collectively in groups. Analysis of your written work is one of the best ways to assess the quality of your thinking. Other ways to assess your thinking are by listening to your answers as well as in the way you solve problems. The exams in this course will attempt to measure how well you have thought about biology. Yes, multiple choice exams can be designed to measure your thinking …here's how.

According to Benjamin Bloom an expert on the psychology of learning, there are six levels of thinking. My lecture exams and pre-lecture question sets are modeled after Bloom's Taxonomy of Higher Thinking. At each level there are key words that identify the level of thinking. Every question in my exams, quizzes, assignments also utilize these key words and allow you to identify the level your thinking should be at.

1. **Remembering Level:** *This includes rote recall and recognition of facts*. Questions that ask you to match terms with their definitions are at this level of thinking. Questions which are asked during exams which test at this level are the "Who?", "What?", "Where?", and "When?" types of questions. Others will ask you to "List", "Identify", "Name", or "State" things. What is the author saying? is another example of a question that asks you to remember.
2. **Understanding Level:** *This results from simple information processing*. This second level of thinking is being tested when questions use words and phrases such as "Restate in your own words", "Explain", "Describe", "Illustrate", "Give an Example". "Summarize", "What are the generalizations?", "What are the conclusions?" or simply "Why?" and "How?"
3. **Applying Level:** *At this level of thinking one learns a concept in one context and is asked to apply it in another*. Questions which test at the application level ask you to "Solve a problem or issue", "Relate", "Associate", "Illustrate", "Demonstrate", or "Calculate". They also ask "What is your opinion?" and "What do you think?"
4. **Analyzing Level:** *Here the thinker seeks deeper meanings, relationships or structure*. Questions at this level of thinking ask you to "Break Down, into parts and examine each part", "Perceive the underlying assumptions", "Trace the reasoning", "Note the fallacies", "Inspect", "Classify", "Generalize", "Note cause and effect relationships", or "Compare". They also can ask, "What are the inferences?" or "What are the author's biases?"
5. **Evaluating Level:** *This type of thinking requires personal reactions. It involves the thought process working in conjunction with the emotional components that affect the thought process.* "Evaluate", Assess", "Value", and "Appreciate" indicate this sixth, and highest level of thinking. "Why is it good?", "Why is it bad?", "What is the worth of it?" and "How would you react?" are all questions which deal with evaluation.
6. **Creating Level:** *Creative thinking involves all of the other levels. In the creative process the student/s, remembers, understands & applies knowledge, analyses and evaluates outcomes, results, successes and failures as well as processes to produce a final product.* The following are some of the key terms for this aspect of the Taxonomy. "Designing", "Constructing", "Planning", "Producing", "Inventing", "Devising", and "Making" are all key terms that identify the creating level of thinking skills.

One of the purposes of the proceeding discussion is to help you plan for learning materials (processing the information) in biology. Use Bloom's Taxonomy of Thinking to focus your attention as you study the principles of biology. My homework, quizzes and exams will test you at all six levels, but more frequently at levels 1-3. Understanding Bloom's Taxonomy will give you greater control in your ability to think. More control on your thinking will reduce your anxiety and make you a more efficient learner for greater success.



Please Note: All the Biology 1 lecture and lab course assignments, quizzes, and exams are created and based off the above Bloom's Taxonomy Thinking Model. It is at the core of how I teach in all aspects of the Biology 1 course. How can you utilize Bloom's Taxonomy in other courses and life?

Give Bloom's Taxonomy a try…it can make you more successful in this course!

Tentative Schedule for all Lecture Sections

Spring Semester 2024| Biology 1 | Minneapolis College

Week	Dates	Topics	Text Readings	MasteringBiology (MB) HmWk
01	Jan. 8 - 14	Introduction to the course	Syllabus	
		Using the Internet & Course Web Site (D2L)		Intro to MB 10 p.m. 1-15-24
		Themes in the Study of Life	Ch. 1	Ch 1 Due 10 p.m. 1-15-24
02	Jan. 15 - 21	Chemical Context of Life	Ch. 2	Ch 2 Due 10 p.m. 1-22-24
03	Jan. 22 - 28	Water & the Fitness of the Environment	Ch. 3	Ch 3 Due 10 p.m. 1-29-24
		Carbon & Molecular Diversity	Ch. 4	Ch 4 Due 10 p.m. 1-29-24
04	Jan. 29 – Feb 4	Structure & Function of Macromolecules	Ch. 5	Ch 5 Due 10 p.m. 2-5-24
05	Feb. 5 - 11	Structure & Function of Macromolecules	Ch. 5	Ch 6 Due 10 p.m. 2-12-24
		LECTURE EXAM I (Exam I covers Chapters 1 – 5 | Will be taken in Lab)		
06	Feb. 12 - 18	A Tour of the Cell	Ch. 6	Ch 7 Due 10 p.m. 2-19-24
07	Feb. 19 – 25	Cell Membrane Structure & Function	Ch. 7	Ch 8 Due 10 p.m. 2-26-24
08	Feb. 26 – Mar. 3	Intro to Metabolism	Ch. 8	Ch 9 Due 10 p.m. 3-4-24
		Cellular Respiration	Ch. 9	
09	Mar. 4 – 10	**SPRING BREAK – NO CLASSES**	Ch 10	Ch 10 Due 10 p.m. 3-11-24
10	Mar. 11 - 17	Cellular Respiration	Ch. 9	Ch 12 Due 10 p.m. 3-18-24
				Ch 13 Due 10 p.m. 3-18-24
		LECTURE EXAM II (Exam II covers Chapters 6 – 9 | Will be taken in Lab)		
11	Mar. 18 - 24	Photosynthesis (Lecture Quiz)	Ch. 10	
		The Cell Cycle (Including lab)	Ch. 12	Ch 14 Due 10 p.m. 3-25-24
		Meiosis (Including lab)	Ch. 13	Ch 15 Due 10 p.m. 3-25-24
12	Mar. 25 – 31	Mendel and the Gene Idea	Ch. 14	Ch 16 Due 10 p.m. 4-1-24
		The Chromosomal Basis of Inheritance	Ch. 15	
13	April 1 - 7	The Molecular basis of Inheritance	Ch. 16	Ch 17 Due 10 p.m. 4-8-24
14	April 8 - 14	From Gene to Protein	Ch. 17	
		LECRTURE EXAM III (Exam III covers Chapters 12 – 16 | Will be taken in Lab)		
15	April 15 - 21	From Gene to Protein	Ch. 17	Ch 22 Due 10 p.m. 4-22-24
		Decent with Modification: Darwin	Ch. 22	
16	April 22 – 28	Decent with Modification: Darwin	Ch. 22	Ch 26 Due 10 p.m. 4-29-24
17	April 29 – May 3	Tracing Phylogeny	Ch. 26	

FINAL EXAMINATION Monday, May 6

Final Exam details will be posted in the "Announcements" area of D2L.

(Note: Your Final Exam will be taken in the S.1200 lab. Final Exam time will be posted in D2L.

The Final Exam is worth 100 points and 50% cumulative, 50% will cover Chapters 17, 22, and 26.

Note: MasteringBiology (MB) Homework Assignments are always due on Monday evenings at 10:00 pm CST. Adaptive Follow-Up's (AFU) are due always 24 hours later after the MB deadline.

HAVE A CHALLENGING AND REWARDING SEMESTER!

Biology 1 – BIOL 2200
Tentative Laboratory Schedule for all Sections
Spring Semester 2024 / Minneapolis College
--Lab Schedule subject to change--

Week	Lab Topics	LabArchives Exercises (PRINT LAB NOTEBOOK)	Post Lab Assignment & Quiz
01 Jan 8 - 14	Introduction to the laboratory - Lab Protocol / Assignments / Grading - Laboratory Safety - Start Mendelian Genetics Experiment (Lab Ex 9)	LabArchives Exercise A	10 PM Sunday, Jan 14
02 Jan 15 – 21	Chemistry of Life (Online Lab)	Exercise 2	10 PM Sunday, Jan 21
03 Jan 22 - 28	Scientific Investigation	Exercise 1	10 PM Sunday, Jan 28
04 Jan 29 - Feb 4	Biological Molecules	Exercise 3	10 PM Sunday, Feb 4
05 Feb 5 – 11	**Lecture Exam I taken in lab**		
06 Feb 12 – 18	The Microscope	Exercise 4	10 PM Sunday, Feb 18
07 Feb 19 – 25	Cell Structure & Membrane Function (Online Lab)	Exercise 5	10 PM Sunday, Feb 25
08 Feb 26 – Mar 3	Cellular Respiration	Exercise 7	10 PM Sunday, Mar 3
09 Mar 4 – 10	***NO LAB MEETING DUE TO SPRING BREAK***		
10 Mar 11 – 17	Cellular Division (Mitosis & Meiosis)	Exercise 8	10 PM Sunday, Mar 24
11 Mar 18 – 24	**Lecture Exam II taken in lab**		
12 Mar 25 – 31	Mendelian Genetics (Chi Square Test)	Exercise 9	10 PM Sunday, Mar 31
13 April 1 – 7	DNA Cloning (Bacterial Transformation)	Exercise 10	10 PM Sunday, April 14
14 April 8 – 14	**Lecture Exam III taken in lab**		
15 April 15 – 21	Mendelian Genetics (Final Results Online Lab)	Exercise 9	10 PM Sunday, April 21
16 April 22 – 28	Electrophoresis – DNA Fingerprinting	Exercise 11	10 PM Friday, April 28
17 April 29 – May 3	Taxonomy and Diversity	Exercise 13	10 PM Friday, May 3

Lab Notes:

- All students MUST purchase a $20 LabArchives online lab manual account using a personal credit card account the first week of the semester.
- All lab exercises will be conducted using the online LabArchives lab manual.
- Most labs will be conducted on campus. Lab Exercises 2, 5 and a portion of 9 will be completed online.
- Students are required to attend the on-campus lab for weeks 5, 10 and 14 to complete Lecture Exams I, II and II.
- Students will take the Biology 1 Final Exam on campus in the S.1200 lab at a time posted in D2L announcements area later in the semester.
- Students must complete the assigned weekly lab exercisea, lab quiz and post lab assignment by 10:00 p.m. on Sunday evenings each week.
- All post lab assessments must be completed and submitted in the LabArchives website.
- No Post Lab Assignments will be accepted in hardcopy or via E-mail.
- All lab quizzes must be completed in the "Assessments"→"Quizzes" area of the Lab D2L website.
- Lab quizzes and post lab assignments CANNOT be made-up if not completed by the Sunday 10:00 p.m. deadline.
- If a student misses more than four or more lab quizzes / post lab assignments, they will need to withdraw before the drop date or will fail the course.
- Students MUST follow to all lab safety polices / procedures outlined in the LabArchives BIOL 2200 Online lab manual.

Biology 1 Required Websites:

The Biology1course requires you to log into the following four websites to do the lecture and lab portions of the course. It is your responsibility to log into these websites often (daily) to ensure you are aware of all required course deadlines and communications.

D2L Lecture

BIOL 2200 All Sections

NOTE: All Lecture Communications / Announcements Posted here in D2L.

D2L-->Materais-->Contents

Lecture Resources:

- Access to eText
- Access to MB
- Strategies for Success
- Mitch's YouTube Video Lectures
- Mitch's Detailed Lecture Notes (DLN)
- Mitch's Active Reading Guides (ARG's)
- Mitch's PowerPoint Lecture Slides
- Mitch's Prezi Lectures
- Vocabulary Flash Cards
- Textbook Glossary
- Wood Roots

Exam Prep Resources:

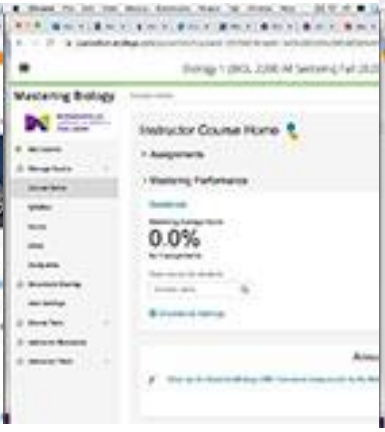
- Chapter Pre-Tests
- Chapter Post-Tests
- Cumulative Test (Practice Exams)
- Explainer Videos

D2L-->Assessments-->Quizzes

- Lecture Exams
- Lecture Quizzes

MasteringBiology (MB)

Pearson's MasteringBiology (MB)



Lecture Homework Assignments by Campbell's "Biology" textbook, 12th ed. chapters:

- **MB Homework Assignments (Due Monday's 10:00 p.m.**
  - **Optional AFU'S - Due Tuesday's 10:00 p.m.**

Study Area:

- Study by Chapter
- Access to eText
- Get Ready for this Chapter
- Practice Tests
- Cumulative Test
- Figure Walkthroughs
- BioFlix 3D Animations
- HHMI BioInteractive Videos
- GraphIt
- Current Events
- Vocabulary Study Tools
- Additional Resources

MB Technical Support: If you are experiencing any registration or web browser issues, please contact Pearson Mastering Support at the following URL's:

- Student Support
- Browser Support

Please do NOT contact your instructor with these technical support issues.

D2L Lab

BIOL 2200 Labs Combined

NOTE: All Lab related Announcements will be posted your Lab D2L Website on Sunday's each week.

D2L-->Assessments-->Quizzes

- Lab Quizzes take here
- Due Sunday's 10:00 p.m.
- **Please read Lab Attendance Policy Carefully as Lab is a REQUIRED experience / assessment component of this course.**

D2L BrightSpace Login URL:

- Click Here

D2L Support URL:

- Click Here

Please do NOT contact your instructor with these issues.

LabArchives

Biology 1 Lab Manual

Online Lab Manual: REQUIRED

Student must register their own LabArchives accounts for $20 using a credit card. Registration URL is posted in your D2L Lab Website.

- Pre-Lab Reading
- Pre-Lab Assignment
- Lab Activities
- **Post Lab Assignments**
- **(Due Sunday's 10:00 p.m.)**
- **All Post Lab Assignments are turned in online in LabArchives.**
- **Post Lab Assignments turned in via e-mail or hardcopy will NOT be accepted.**
- **Please read Lab Attendance Policy Carefully as Lab is a REQUIRED experience / assessment component of this course.**

LabArchives How to Guide:

- Quick Start Guide

LabArchives Technical Support: If you are experiencing any registration or web browser issues, please contact LabArchives Support at the following URL's:

- Student Support
- Browser Support

Please do NOT contact your instructor with these technical support issues.

***Biology 1 Weekly Schedule*:**

Every Sunday I'll post my Weekly Announcements in the Lecture and Lab D2L websites noting the following:

Sunday's
- Weekly Lab Exercise Post Lab Assignment submitted in LabArchives due at 10 pm (see lab schedule above)
- Weekly Lab Quiz completed in D2L website for Lab due at 10 pm. (see lab schedule above)

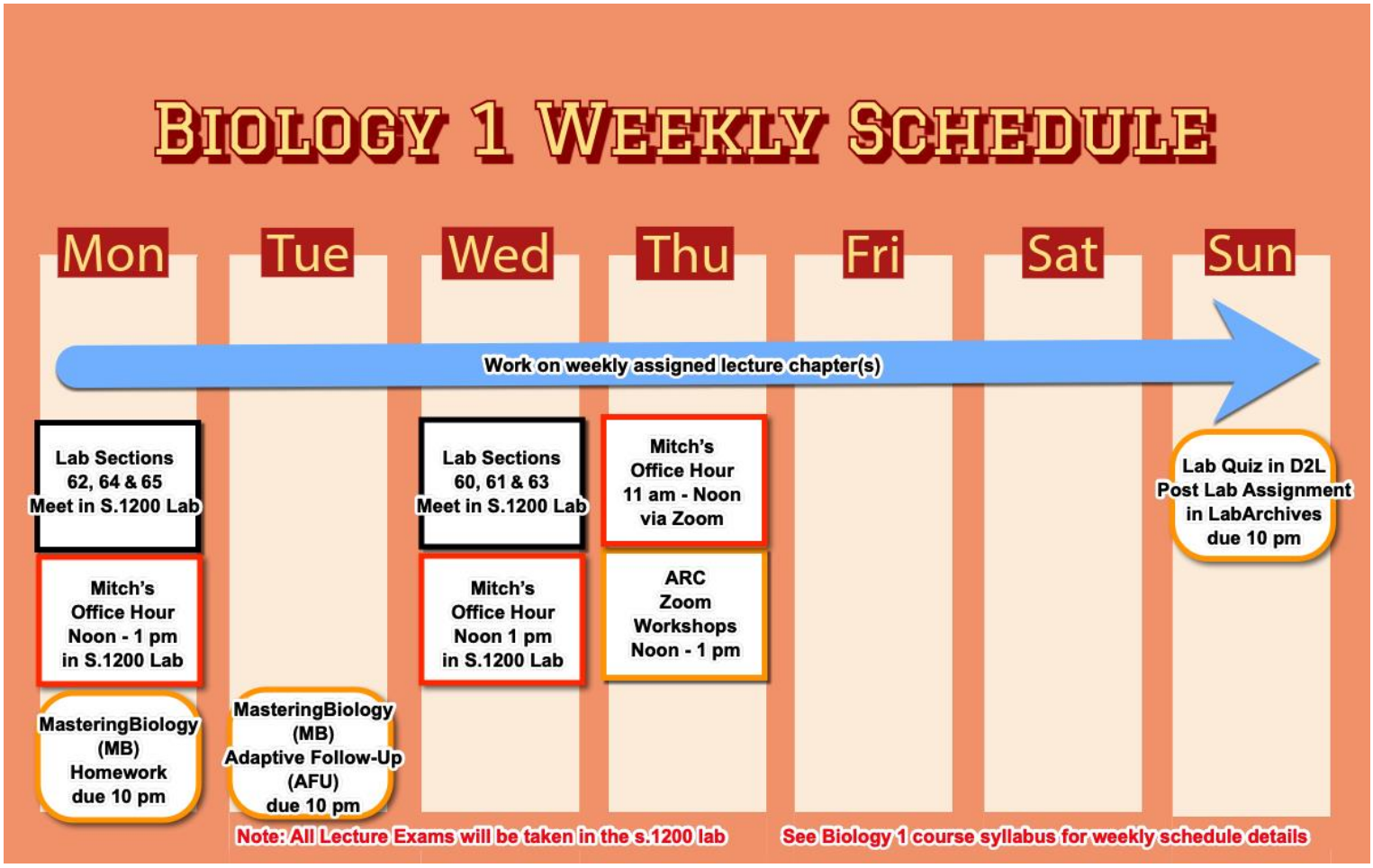
Monday's
- Completed scheduled MasteringBiology (MB) Homework Assignments due at 10 pm (see lecture schedule above)
- Attend On Campus Lab Sections 62, 64, and 65 meet in the S.1200
- Mitch's Office Hour -12-1 pm in S.1200 lab

Tuesday's
- Completed scheduled MasteringBiology (MB) Homework Assignments due at 10 pm OPTIONAL Adaptive Follow-Up (AFU)

Wednesday's
- Attend On Campus Lab Sections 60, 61, and 63 meet in the S.1200
- Mitch's Office Hour - 12-1 pm in S.1200 lab

Thursday's
- Mitch's Office Hours - 11am - Noon via Zoom (Link also posted in D2L Announcements)
- Academic Success Center (ASC) Biology 1 Workshops - Th 12-1 pm via Zoom (Link also posted in D2L Announcements)

*****Always pay attention for other posted course deadlines & READ all Announcements posted in D2L daily*****



The above schedule is an example of typical Weekly Biology 1 Schedule / Deadlines

WHAT is REQUIRED and EXPECTED by the BIOLOGY 1 STUDENT each WEEK:

You are REQUIRED to do the following two tasks:

1. Master the Biology 1 Vocabulary Terms covered in each textbook chapter.
2. Understand the Concepts and Principles of Biology covered in each textbook chapter.

You are EXPECTED to do the following in order to master the above two tasks:

- Read the assigned textbook reading listed in the Lecture Schedule on page 5 of this syllabus.
    - Use the Active Reading Method 3x per chapter reading for each textbook chapter.
        - 1st – Skim the chapter for major themes covered and visuals
        - 2nd – Write out Vocabulary Cards to practice learning vocabulary
        - 3rd – Sit down and read word-for-word – reading will flow and you won't get bogged down with info overload.
- Annotate the **Detailed Lecture Notes (DLN's)** as you work through each chapter
- View Mitch's YouTube Chapter Lecture Videos.
- Utilize Active Studying strategies / methods to learn / understand the Biology 1 vocabulary terms and concepts
    - Complete Mitch's Active Reading Guides (ARG's) – These become amazing Study Guides for the lecture exams.
    - Participate in the Academic Success Center (ASC) Workshops
    - Form a peer study group or partner
    - Meet and complete the Monday 10 pm deadlines for MasteringBiology (MB) Homework Assignments.
- Actively attend lab and complete the weekly lab Sunday 10 pm Deadlines for Post Lab Assignments and Lab Quizzes.
- Participate in the scheduled office hours and Lecture Exam Study Sessions.

Biology 1 – Instructor's Lecture Resources:

DLN = Detailed Lecture Notes Directory Homepage

My Detailed Lecture Notes (DLN's) come in two versions, 1.) Print with links to explainer videos and 2.) Enhanced (**DLN EN**) version with images and links to explainer videos specifically for students using smart phones, tablets and PC's to study with. Students bring the printed version of the DLN's to lecture class and mark-up these lecture outlines during the lecture presentations. Online students also do the same while viewing my YouTube lecture videos.

ARG = Active Reading Guides Directory Homepage

My Active Reading Guides come in two versions, 1.) Print version and 2.) Enhanced (**ARG EN**) version with images and links to explainer videos specifically for students using smart phones, tablets and PC's to study with. These promote active learning of the Biology 1 course concepts and principles and utilize active learning strategies to help students remember, understand and learn the chapter concepts in a more efficient ways. These ARG's when completed make remendous study guides for each chapter. Both my DLN's and ARG's are found in the "Materials"-->"Content" area of D2L

CHAPTER	*DLN PRINT*	***DLN** EN*	*LECTURE VIDEO*	*ARG PRINT*	***ARG** EN*
01 - Intro to Biology	Click here	Click here	Click here	Click here	Click here
02 - Chemistry	Click here	Click here	Click here	Click here	Click here
03 - Water	Click here	Click here	Click here	Click here	Click here
04 - Carbon Chemistry	Click here	Click here	Click here	Click here	Click here
05 - Macromolecules	Click here	Click here	Click here	Click here	Click here
06 - Cells	Click here	Click here	Click here Part 1 Part 2 Part 3	Click here	Click here
07 - Cell Membranes	Click here	Click here	Click here	Click here	Click here
08 - Intro to Metabolism	Click here	Click here	Click here Part 1 Part 2	Click here	Click here
09 - Cellular Respiration	Click here	Click here	Click here Part 1 Part 2 Part 3 Part 4 Part 5 Part 6	Click here	Click here
10 - Photosynthesis	Click here	Click here	Click here	Click here	Click here
12 - Mitosis	Click here	Click here	Click here	Click here	Click here
13 - Meiosis	Click here	Click here	Click here	Click here	Click here
14 - Mendelian Genetics	Click here	Click here	Click here	Click here	Click here
15 - Chromosomes	Click here	Click here	Click here	Click here	Click here
16 - DNA - Replication	Click here	Click here	Click here	Click here	Click here
17 - Protein Synthesis	Click here	Click here	Click here Part 1 Part 2	Click here	Click here
22 - Dariwin - Evolution	Click here	Click here	Click here	Click here	Click here
26 - Phylogeny - Taxonomy	Click here	Click here	Click here	Click here	Click here

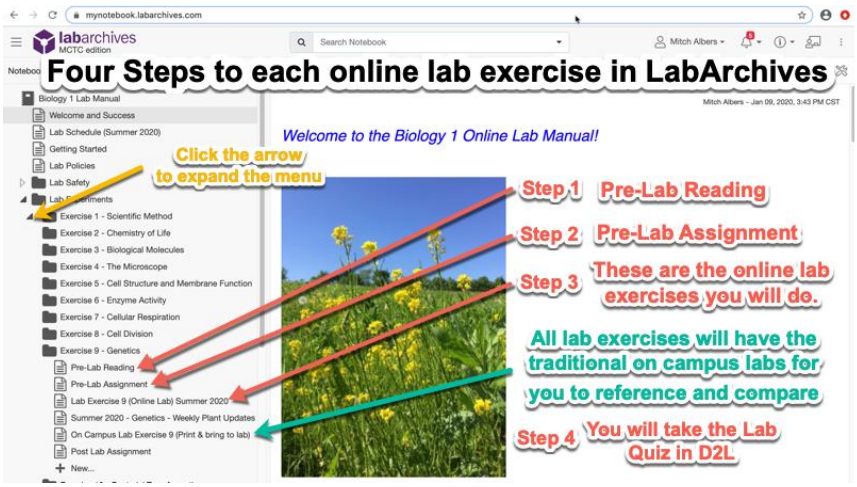
How the Biology 1 Lab Exercises are to be completed each week in LabArchives:

The D2L Lab website is where I'll be posting your Lab Grade Book and where you'll find announcements for each weeks Online Lab Exercises and Quizzes.

LabArchives Online Lab Manual:

The required online Lab Manual is called **LabArchives and is a separate website from D2L**. You will be using LabArchives to work through the lab activities and to submit your Post Lab Assignments for grading each week. Details about LabArchives and how to register your $20 LabArchives account are posted in the announcements area of your D2L Lab Website.

The below annotated image of Lab Exercise 1 - Scientific Investigation describes all the LabArchives online lab manual menu features.



ONLINE LAB EXERCISE 9 (GENETICS) ** EXAMPLE BELOW **

The weekly labs will be completed in the following four steps:

Step 1: Pre-Lab Reading

- Students need to read the Pre-Lab Reading Lab Exercise 9 (Genetics) articles posted for each lab.

Step 2: Pre-Lab Assignment

- Students need to work through and complete the Pre-Lab Assignment(s) for Lab Exercise 9 (Genetics).
- NOTE: You will NOT turn these in to be graded by will be quizzed on them.

Step 3: Online Lab Exercise(s)

- Students need to print hardcopies of these and work through the online Lab Exercise 9 (Genetics).
    - Online Genetics Activity 1 - Chi Square Test in action
    - Online Genetics Activity 2 - Results and Discussion of Mendelian Dihybrid Cross of ***Brasica rapa*** (wild mustard) plants
    - The printed hardcopies of each lab are to be organized into a 3-ring binder each week.

Step 4: Lab Quiz

- Students need to complete the online Lab Exercise 9 quiz in the "Assessments"-->"Quizzes" area of your "lab D2L website" by 10:00 pm Sunday following the scheduled lab.
- Weekly Lab Quiz questions will be generated from each lab's Pre-Lab Reading, Pre-Lab Assignment and Online Lab Exercise(s).

Additional Biology 1 Course Policies / Information:

Important Last Date of Attendance (LDA) Policy for Students

Last Date of Attendance (LDA) Policy for Minneapolis College can be viewed at this URL: https://minneapolis.edu/about-us/policies/policy-416

PART 1. PURPOSE - The purpose of the Last Date of Attendance (LDA) policy is to appropriately assess financial and academic liability for students, ensure good stewardship of financial aid funds and limit financial and academic liability for the College and its students.

PART 2. RESPONSIBILITY - Students are expected to regularly attend classes in which they are enrolled and abide by Minneapolis College Policy 4.05.01, Procedures for Changing Enrollment. Students who do not plan to attend or stop attending a course should immediately drop the course prior to the drop deadline. If they wish to withdraw from their course after the drop deadline, they should do so prior to the College-wide withdraw deadline for the semester. A student who is administratively withdrawn pursuant to this policy remains financially responsible as defined in the financial obligation statement acknowledged by the student when registering online or submitting forms to the college requesting registration assistance for their course(s) along with other related expenses.

Students who do not attend or participate in the first two weeks of the course will be administratively withdrawn and reported as Never Attended.

Students who stop attending for two consecutive weeks during the course will be administratively withdrawn as Partially Attended.

Additionally, a student who is administratively withdrawn pursuant to this policy is responsible for any academic consequences pursuant to Minneapolis College Policy 4.13, Satisfactory Academic Progress - Academic and Financial Aid.

Last Date of Attendance (LDA) shall be determined for students meeting the following:

- A student who is on the class roster but fails to log into and participate as directed in the course during the first week of the course; or
- A student in the course who has not participated as stated in the syllabus and / or accessed online class materials and/or the faculty member has not received any communication or assignments from the student within a period of 14 calendar days; or
- A student has no attendance activity within the course i.e. hasn't completed an assignment, taken a quiz or participated in an online discussion or has not conducted any E-mail communication directly with the instructor for a period longer of 14 calendar days many be administratively withdrawn from the course by the course instructor via the LDA process. A student who just logs into D2L, LabArchives, MasteringBiology (MB) does not equal participation in the course.
- Once an LDA has been administered by the college it is not negotiable with the student.

Course Communications &Frequency E-mail will be checked by the Instructor:

All course communications will be posted in the "News" area of D2L. I will post weekly updates each Sunday evening about the upcoming weeks events in the course. Students are responsible for checking the course syllabus and News area in D2L on a regular basis to make sure they are up-to-date on what is happening in the course.

I will only send you an E-mail in an emergency, otherwise I'll only use E-mail to respond to your questions that are sent directly to my Minneapolis College E-mail address.

I generally check my E-mail numerous times every day. I will try to respond to your questions as soon as possible. Be aware that I may not respond to your E-mail for a day or two. I do check messages on weekends at times, but don't expect that I will respond to messages sent on a weekend or holiday. I may not respond to certain questions that can be easily answered from information provided in your course syllabus or in the announcementss area of D2L.

My e-mail address: **mitch.albers@minneapolis.edu**

Guidelines for Sending E-mail Communications to your Instructor:
If you need to send me an e-mail for any reason about this course you MUST include the following information:

1.) Include your full First and Last names as they are listed in the course roster in D2L. I will NOT respond to any e-mail messages that do not include your full name in them.
2.) Include the topic of your e-mail in the "subject line" of your message. I will NOT open any e-mails without the subject line being included in the message.
3.) You need to write complete sentences, with proper punctuation, spelling and grammar. NO text abbreviations please!

Course Access and Success:

I am committed to creating a course that is inclusive in its design.

If you encounter barriers, please let me know immediately so that we can determine if there is a design adjustment that can be made to overcome the limitations of the design. I am always happy to consider creative solutions as long as they do not compromise the intent of the assessment or learning activity. I welcome feedback that will assist me in improving the usability and experience for all students.

You are also welcomed to contact the Accessibility Resource Center to begin this conversation or to establish accommodations for this or other courses. The Accessibility Resource Center (ARC) is here to remove barriers for students who:

- experience stress and anxiety related to academics,
- struggle with attention and focus,
- have mental health concerns that impact school,
- use assistive and/or adaptive technologies,
- had an IEP or a 504 Plan in high school, and/or
- identify as a person with a disability.

The ARC:

The Accessibility Resource Center (ARC) is the office designated to work with students with disabilities to determine and facilitate reasonable and appropriate accommodations.

- connects students, faculty, and staff to appropriate resources,
- coach's students on how to work through challenges,
- builds advocacy skills,
- ensures equitable access, and
- proctors all instructor arranged make-up testing and testing accommodations.

For more information visit Accessibility Resource Center. (Or go to minneapolis.edu > "Students" in upper right > Student Support Services > Accessibility Resource Center.

Veterans and Active Military Members:

Minneapolis College is dedicated to assisting veterans and eligible family members in achieving their educational goals. Military members who are currently serving should advise their instructor of all regularly scheduled military training and duties that conflict with scheduled course requirements. Instructors will work with the student to address issues that arise. For further information on this, refer to Minnesota State Procedure 5.12.1 Military Service and Disabled Veterans.

Religious Observation:

Minneapolis College is dedicated to our core values of diversity and inclusion, including non-discrimination based on religion. Please provide reasonable notice of the dates of religious holidays on which you will be absent. Absence from classes or examinations for religious reasons does not relieve you from responsibility for any part of the course work required during the period of absence, but it is my responsibility to make reasonable accommodations, In accordance with College Policy 2.07, so you do not need to choose between religious observance and academic work. Note that to receive this accommodation, it is important that you request it from me "within a reasonable time before the needed accommodation," as stated in the policy.

Removing Barriers for Lack of Basic Needs:

If you face challenges securing food or housing and this is affecting your performance in your courses, consider contacting the Student Support Center. If you're comfortable letting me know as well, I may be able to connect you with additional resources.

Academic Advising:

A strong partnership with an academic advisor will help you to navigate the college, understand program requirements and develop your education plan. We are here to get you to get you there! **Academic Advising Appointments:** Schedule through Navigate

Click here for more information above Academic Advising.

Additional Minneapolis College Campus Student Resources:

The following links provide student information about resources available to you here at Minneapolis College campus. You will find links to a variety of campus resources below. Click here for all Student Support Services for Spring Semester 2024

Academic Success Center
Accessibility Resource Center (ARC)

African American Education Empowerment Program
American Indian Success Program (Unite)
Collegiate Recovery Program
Information Technology Services
LUCHA (Latinos Unidos for College and Higher Achievement)
Minneapolis College Library

Minneapolis College Store
Navigate
Student Support Center
Student Health Clinic
TRIO / Starting Point
Veterans Services

About your Biology 1 Course Instructor - Mitch Albers:

I have been teaching Biology in the Minnesota State College and University System for the past thirty-eight years. This is my 35th year teaching and working here at Minneapolis College. Previous to Minneapolis College, I taught courses at Century College (White Bear Lake, MN), Vermilion Community College (Ely, MN) and in the Biology Department at St. Cloud State University (St. Cloud, MN). I served as the Minneapolis College Science Chairperson for 14 years and also served as the Dean of Math and Science for Minneapolis College.

For the past twenty five years I have been integrating instructional technologies into my course curriculum which includes teaching online courses for Principles of Biology - BIOL 2200, Anatomy - BIOL 2224, Human Biology Online Lab - BIOL 1128.

I enjoy spending time with my family and friends doing many outdoor activities. My hobbies include camping, outdoor photography & videography, fishing, hiking and canoeing. I enjoy building log buildings and handcrafting rustic furniture. I've built my own log cabin in northern Minnesota, I've canoed from Lake Winnipeg, Manitoba to Hudson Bay on the North Atlantic Ocean, I've ran 12 marathons and dozens of half marathons. Lately I've been interested in flying drones for biological applications. I play ice hockey in an old geezer hockey league several times a week and practice vinyasa yoga. Our family has three dogs, two golden retrievers and a miniature dachshund. We also raise chickens at our home for their eggs.

I also volunteer my time with the MN Department of Natural Resources (MnDNR), MN Pollution Control Agency (MPCA), and I have served on some local Boards related to our local school district and community organizations.

Education:
Bachelor's Degree
Biology
St. Cloud State University

Master's Degree
Biology
St. Cloud State University

Continued Post Graduate Education
University of Minnesota
- College of Biological Sciences
- College of Science Education
Minnesota State University
Hamline University

Research Interests:

- Icthyoplankton Drift in the Mississippi River at St Cloud MN (My master's degree thesis project)
- Colonial Fish-Eating Birds of the Prairie
- Early Life Development of Fish
- Effective Teaching and Learning with Instructional Technologies
- Increasing Student Success with MasteringBiology (MB) Homework Assignments
- Biological Applications of Drones

BEST OF LUCK THIS SEMESTER…WORK HARD AND IT WILL PAY OFF!