

Biology 1610

2018 Syllabus

Instructors

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Course Materials

The textbook we will use is the 11th edition of Campbell Biology by Reese *et al.* In addition to the textbook, you will need an online assignment system called Mastering Biology, which is specific to the 11th edition of Campbell Biology. The easiest option to obtain both of these is to buy the package in the USU bookstore for \$195, which contains a hard copy (loose-leaf) version of the textbook and an access code for Mastering Biology. We have negotiated a reduced price for this combination, so it's also one of the cheapest ways to get both items. It is important to realize that the materials purchased for Biology 1610 also work for Biology 1620. The purchase you make now is on the only one you'll need to make for both courses.

If you already have a book or are willing to use an eText instead of a hard copy, you may be able to save money by purchasing Mastering Biology directly through Canvas. There are two versions available:

- 1) *Modified Mastering Biology with eText and Learning Catalytics for Reece, Campbell Biology, 11/e Mastering Biology* (\$115.95). This version contains an etext of the book.
- 2) *Modified Mastering Biology without eText or Learning Catalytics for Reece, Campbell Biology, 11/e* (\$68.95). This version does not contain an etext of the book.

If you follow either of these options, **you must** purchase Mastering Biology online through Canvas via the link on the *MyLab and Mastering* tab on the left menu. **Access codes obtained from sources other than the USU bookstore package or the Canvas link will not work.** More information about these options will be given on the first day of class.

Finally, we highly recommend that you purchase an iClicker. iClickers will be used to answer questions in class and will allow you to earn up to 2% extra credit points in your final course score. iClickers can be rented or purchased new or used from the bookstore or through other

vendors. Any model of iClicker will work for this class, but it must be an iClicker, not another type of polling device.

Schedule

1	29-Aug	Wed	Lecture	Introduction: Themes in the Study of Life The Chemical Context of Life	Mott	1, 2	
	30-Aug	Thurs	Mastering Biology	Intro to Mastering Biology/Practice Assignment			
	31-Mar	Friday	Lecture	The Chemical Context of Life	Mott	3	
2	3-Sep	Mon	LABOR DAY	NO CLASS			
	5-Sep	Wed	Lecture	Water and Life; the Molecular Diversity of Life	Mott	4	
	6-Sep	Thurs	Mastering Biology	Assignment 1			
3	7-Sep	Friday	Lecture	A Tour of the Cell	Mott	5	
	10-Sep	Mon	Lecture	Structure and Function of Macromolecules	Mott	6	
	12-Sep	Wed	Lecture	Membrane Structure and Function	Mott	7	
	13-Sep	Thurs	Mastering Biology	Assignment 2			
4	14-Sep	Friday	Lecture	Introduction to Metabolism	Mott	8	
	17-Sep	Mon	Lecture	Cellular Respiration and Fermentation	Mott	9	
	18-Sep	Tues					Exam 1
	19-Sep	Wed	Lecture	Photosynthesis	Mott	10	Exam 1
	20-Sep	Thurs	Mastering Biology	Assignment 3			Exam 1
5	21-Sep	Friday	Lecture	Photosynthesis	Mott	10	
	24-Sep	Mon	Lecture	Cell Communication	Podgorski	11	
	26-Sep	Wed	Lecture	Cell Communication	Podgorski	11	
	27-Sep	Thurs	Mastering Biology	Assignment 4			
6	28-Sep	Friday	Lecture	The Cell Cycle	Podgorski	12	
	1-Oct	Mon	Lecture	The Cell Cycle	Podgorski	12	
	3-Oct	Wed	Lecture	Meiosis and Sexual Life Cycles	Podgorski	13	
	4-Oct	Thurs	Mastering Biology	Assignment 5			
7	5-Oct	Friday	Lecture	Mendel and the Gene Idea	Podgorski	14	
	8-Oct	Mon	Lecture	Mendel and the Gene Idea	Podgorski	14	
	9-Oct	Tues					Exam 2
	10-Oct	Wed	Lecture	The Chromosomal Basis of Inheritance	Podgorski	15	Exam 2
	11-Oct	Thurs	Mastering Biology	Assignment 6			Exam 2
8	12-Oct	Friday	Lecture	The Chromosomal Basis of Inheritance	Podgorski	15	
	15-Oct	Mon	Lecture	The Molecular Basis of Inheritance	Podgorski	16	
	17-Oct	Wed	Lecture	The Molecular Basis of Inheritance	Podgorski	16	
	18-Oct	Thurs	Mastering Biology	Assignment 7			
9	19-Oct	Friday	FALL BREAK	NO CLASS			
	22-Oct	Mon	Lecture	From Gene to Protein	Podgorski	17	
	24-Oct	Wed	Lecture	From Gene to Protein	Podgorski	17	
	25-Oct	Thurs	Mastering Biology	Assignment 8			
	26-Oct	Friday	Lecture	From Gene to Protein	Podgorski	17	

Schedule (cont)

10	29-Oct	Mon	Lecture	Regulation of Gene Expression	Podgorski	18	
	30-Oct						Exam 3
	31-Oct	Wed	Lecture	Regulation of Gene Expression	Podgorski	18	Exam 3
	1-Nov	Thurs	Mastering Biology	Assignment 9			Exam 3
	2-Nov	Friday	Lecture	Viruses	Podgorski	19	
11	5-Nov	Mon	Lecture	Genomes and Their Evolution	Podgorski	21	
	7-Nov	Wed	Lecture	Genomes and Their Evolution	Podgorski	21	
	8-Nov	Thurs	Mastering Biology	Assignment 10			
	9-Nov	Friday	Lecture	Phylogeny and the Tree of Life	Mott	26	
12	12-Nov	Mon	Lecture	The History of Life on Earth/Bacteria and Archaea	Mott	25,27	
	14-Nov	Wed	Lecture	Bacteria and Archaea/Protists	Mott	27,28	
	15-Nov	Thurs	Mastering Biology	Assignment 11			
	16-Nov	Friday	Lecture	Protists/Fungi	Mott	28, 31	
13	19-Nov	Mon	Lecture	Fungi/Plant Diversity I	Mott	31, 29	
	21-Nov	Wed	Thanksgiving	NO CLASS			
	22-Nov	Thurs	Thanksgiving	NO Mastering Biology Assignment			
	23-Nov	Friday	Thanksgiving	NO CLASS			
14	26-Nov	Mon	Lecture	Plant Diversity I	Mott	29	
	27-Nov	Tues					Exam 4
	28-Nov	Wed	Lecture	Plant Diversity II/ Plant Structure and Growth	Mott	30, 35	Exam 4
	29-Nov	Thurs	Mastering Biology	Assignment 12			Exam 4
	30-Nov	Friday	Lecture	Plant Structure, Growth and	Mott	35	
15	3-Dec	Mon	Lecture	Resource Acquisition and Transport / Plant Nutrition	Mott	36, 37	
	5-Dec	Wed	Lecture	Plant Responses to Internal and External	Mott	39	
	6-Dec	Thurs	Mastering Biology	Assignment 13			
	7-Dec	Friday	Lecture	Review for the Final Exam			
10-13 Dec Mon - Thurs Final Exam							Final Exam

Grading

There will be 4 midterm exams during the semester, but you will be allowed to drop the lowest one. However, *only one hourly exam score can be dropped*. The final exam must be taken. Your core course grade will therefore be based on 3 one-hour exams, a final exam, and 13 online assignments in *Mastering Biology*. As described below, extra credit points are possible from using clickers in class. Point allocations are as follows

Midterm Exam	40 pts
Midterm Exam	40 pts
Midterm Exam	40 pts
Final Exam	80 pts
Mastering Biology	20 pts
Total	220 pts

No individual extra credit opportunities are available. However, up to 2% (4.4 course points) will be added to your course score for classroom participation assessed using your iClicker. (You must be present in class with a working iClicker to receive clicker for that day. There are **no excused absences for any reason.**) **Use of another student's iClicker in class is considered to be cheating** and a violation of the University Honor Code. Please do not do this. Your final letter grade for the course will be determined by the total points you accumulate during the semester according to the scale below. Percentage scores are calculated to two significant figures and are **not rounded up.**

Grade minimum percentage

A	93.33%
A-	90%
B+	86.67%
B	83.33%
B-	80%
C+	76.67%
C	73.33%
C-	70%
D+	67.67%
D	60%
F	< 60%

Exam Information

All four midterm exams and the final exam will be administered online through Canvas in the USU Testing Center. All exams will be multiple choice, and the content of exams will be from material covered during lecture, including iClicker questions, assigned readings that will be indicated with highlights or comment balloons in the online version of the textbook, and from Mastering Biology questions that you have already answered as part of weekly Mastering Biology assignments. Material to be covered in each exam will be discussed in class prior to the exam. **Portable electronic devices (iPods, iPads, laptops, cell phones, etc.) earphones, or headphones may not be used during examinations. There will be no makeup exams.**

The four midterm exams are spaced evenly throughout the semester. We will drop your lowest exam score and calculate your course score based on the remaining 3 hourly exam scores (see the *Grading* page for more details).

Exams will be given in the USU Logan Testing Center over a 3-day period; you will need to schedule a time take the exam anytime during the 3-day period. Instructions on how to sign up to schedule

your exam will be given in class. If you are unable to take the exam during the scheduled 3-day period for a valid reason (university-related event, military service, job-related travel, an interview for graduate or professional school.) you should notify one of us as soon as possible and we will arrange an alternate time. Be prepared to document the reason for rescheduling. If you miss an exam for any other reason, we will drop that score from your grade as your lowest score (see above). If you must miss an exam because of an emergency (e.g., sudden and incapacitating illness, death in the family), you must notify us as soon as possible and preferably before the end of the exam period. Be prepared to prove your emergency. Failure to adhere to this policy will result in a zero for that exam. You can **only drop one hourly exam score**. Exam periods are marked on the course schedule.

Exam scores will be reported to you in Canvas as soon as you finish the exam in the testing center. You will be able to see your exam with the correct answers marked soon after the testing period for that exam expires.

You have one week from the time assignment or exam scores are posted to dispute grading. If you think there is a mistake in a question or in assigning points on an exam or assignment, please bring it to the attention of the appropriate instructor within one week of the time that **answers** for that exam or assignment **are issued**.

Final Exam: The final exam is comprehensive and will be two hours in length. It will be administered in the testing center over a 4-day period. Please **DO NOT SCHEDULE EARLY TRAVEL PLANS** because you will **not be released** from taking the final during the scheduled time.

Mastering Biology

Mastering Biology is an online homework and tutorial system that is designed to improve your learning of biology. The system can be accessed by clicking on the *MyLab and Mastering* tab on the menu to the left. The USU package for the course contains an access code for Mastering Biology, but if you did not purchase the USU package you will need purchase an access code through Canvas when you on the *MyLab and Mastering* tab. Codes purchased from other sources or with other versions of the textbook **will not work**.

There will be weekly Mastering Biology assignments that require you to complete exercises and activities and answer roughly 20 to 50 multiple choice questions. **Assignments are due at midnight on each Thursday as indicated on the Schedule.** 1% per hour is deducted from your score for questions answered after midnight on Thursday. Each weekly Mastering Biology assignment is designed to take about 1 hour, but there is no time limit and you don't have to complete the entire assignment in one session. There is a tutorial session, *Introduction to MasteringBiology*, which is optional and can be completed at any time, and a practice assignment that is due on Thursday, September 1. **The practice assignment will not count for credit**, but will allow you to become

familiar with the *Mastering Biology* software and provide assurance that your later scores will be recorded correctly.

Your score in Mastering Biology counts for 20 points (9.1%) of your course score. Mastering Biology is a powerful learning tool if used wisely. Working in groups is fine, as long as everyone in the group participates in answering each question. You will be given two chances to answer each question correctly. An incorrect first answer will not count against your score.

There are many ways to use Mastering Biology *ineffectively*. Three popular abuses are blindly copying answers from friends, guessing on answers, or looking up the answers online. All these approaches may give you nearly the full 20 Mastering Biology points, but you won't learn anything and you won't be able to correctly answer the **Mastering Biology questions that will be part of every exam**. Trust us - we often see Mastering Biology questions with a 90% or higher correct response rate in assignments, with the same questions on exams giving a correct response rate of less than 30%. Please use Mastering Biology to master biology, not simply to obtain 20 points that you'll more than lose on exams because you don't know the material.

Clickers

iClickers will be used to answer questions in class and will allow you to earn up to 2% extra credit points in your final course score. iClickers can be rented or purchased new or used from the bookstore or through other vendors. Any model of iClicker will work for this class, but it must be an iClicker, not another type of polling device. ***You must register your clicker using the iClicker registration link in Canvas to receive credit***

There are many reasons for using clickers, including providing immediate feedback on your understanding of material presented in class, keeping you engaged in lecture, providing us with an idea of how we're doing as instructors and how you're doing as a student, and providing insight to the kinds of questions we might ask on exams. **Some iClicker questions will be included on each exam**. Use of clickers will provide up to of 4.4 extra credit points (2% of 220 maximum possible points) added to your course score based on participation, regardless of whether you answered correctly or not. Because these are extra credit points, you need to be in class with a working iClicker to obtain them. **If you miss class for any reason, forgot to bring your iClicker, or have technical problems with your iClicker, you also miss the points for that day**. Be aware that each class session provides roughly 0.08% extra credit points, so if you did forget your iClicker or have technical problems, you're not losing a substantial number of extra credit points. Since iClicker use is for extra credit, we can't require you to purchase one, but strongly recommend that you obtain a clicker and use it for this course.

Using another student's clicker or allowing another student to use your clicker is a violation of the University's Honor Code; it will result in loss of all extra credit points and will be reported to the Vice President for Student Services.

Academic Honesty/Integrity Policy: The [USU Academic Honesty and Integrity Policy](#) will be followed in this course. These policy statements apply to all aspects of the course, including clickers. Use of another student's clicker in class is a violation of policy.

Sexual Harassment: Sexual harassment is defined by the Affirmative Action/Equal Employment Opportunity Commission as any "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature." If you feel you are a victim of sexual harassment, you may talk to or file a complaint with the Affirmative Action/Equal Employment Opportunity Office located in Old Main, Room 161, or call the AA/EEO Office at 797-1266.

Students with Disabilities: The Americans with Disabilities Act states: "Reasonable accommodation will be provided for all persons with disabilities in order to ensure equal participation within the program. If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center (797-2444), preferably during the first week of the course. Any request for special consideration relating to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative format, large print, audio, diskette, or Braille."

Withdrawal Policy and "I" Grade Policy: Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances, but not due to poor performance or to retain financial aid. The term 'extenuating' circumstances includes: (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks, (2) a death in the immediate family, (3) financial responsibilities requiring a student to alter a work schedule to secure employment, (4) change in work schedule as required by an employer, or (5) other emergencies deemed appropriate by the instructor.