



College Biology (BIOL1010)

Snow College Concurrent Enrollment



INSTRUCTOR

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TEXTBOOK

Biology, 10th ed., by Sylvia Mader, McGraw Hill Higher Ed., 2010.

COURSE WEBSITE

Textbook Website: www.mhhe.com/maderbiology10

GRADING POLICY



	Qtr 1
Snow College Final Exam	25%
Research Paper	25%
Unit Tests	15%
Assignments	15%
Laboratories	10%
Quizzes	10%



COURSE DESCRIPTION

College Biology (BIOL1010) is a fundamental course in the underlying principles of life to include the methods of obtaining knowledge (scientific method), molecular components of cellular structures and their functions, genetics and specification, diversity of living organisms with surveys of the three domains (Bacteria, Archaea, and Eukarya), and an introduction to Ecology and the role of humankind in the Biosphere. Human Biology is not taught in this course.

This is a 3-credit hour introductory college general education course, and is required at all major colleges and universities in the United States regardless of your major area of interest. This course will be handled the same as if you were at Snow College taking it as a college student.

BEING SUCCESSFUL

You are expected to act like a competent and responsible college student in my class. Failure to maintain a high level of discipline and increased study habits will result in your immediate drop from the course. I do not tolerate immature behavior! I expect you to act your age and to be anxiously involved in the class and the learning process. Do not do anything in my class that would detract from the learning atmosphere of the classroom. This not only looks bad on your high school transcript, but may tarnish your college transcript before you even officially attend college! Don't let this happen to you. If you are not to the challenge, then expect to be dropped in order to save your college career. Taking this course in high school is a luxury and a privilege, don't blow it!! **ONE HOUR OF CLASS TIME EQUALS THREE HOURS OF HOME STUDY.**

General class etiquette must be observed during class time. This includes being respectful and courteous to the instructor and fellow students, and actively participating. Acting disrespectful in any manner to the instructor or other students will be met with strict consequences that may include a drop in grade, disciplinary action by the teacher or principal, and removal from the course. In your communications with fellow students and the instructor, exhibition of the following is prohibited: anger, sarcasm, swearing, derogatory or racial comments, sexual innuendos or harassment, threats of violence or retaliation, and any other behavior deemed inappropriate by the instructor. When the bell rings, you and your fellow classmates are expected to be quiet and ready to learn.

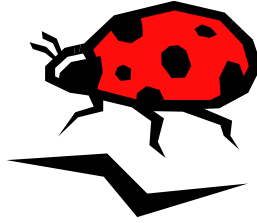
High school is a busy time where you will be engaged in many activities that will take you away from your learning time. You will need to find ways to balance out-of-class activities such as athletics, FFA, Music, etc. Please understand that your day-to-day class work is **MORE IMPORTANT** than all the other activities that you do. You will most likely want to go to college some day. Research has shown that students who maintain **HIGH ACADEMIC** standards are the ones who get the scholarships and grants, and are able to attend colleges and universities of their choice. Furthermore, to aspire to prestigious and high paying jobs only comes to those who have taken their high school academics seriously, are accepted into good colleges and universities, then complete their training with the greatest amount of proficiency.

This course will be rigorous and it will be your responsibility to get your work done. We will not stop, slow down, or make exceptions for those students that are lazy, sleepy, bored, or otherwise disinterested. You will find yourself getting behind very quickly if you choose to exhibit any of these behaviors. Also, just because you miss class due to athletics or other school activities, don't expect any special treatment. You will need to keep up your work regardless of how much you miss class. **There will be NO exceptions to this rule!**

COURSE PROCEDURES

Departmental Final (25%) – In order to pass this course and receive college credit, you must pass a comprehensive Snow College final examination with a score of 60% or better. If you score lower than 60%, then an F grade is put onto your Snow College transcript. Do not let this happen to you, because it can greatly affect your future college career. The final exam covers the following topics weighted at the given percentage:

5%	Scientific Method
10%	Simple Chemistry
10%	Cell Structure and Function
10%	Metabolism
15%	Central Dogma (beliefs)
15%	Simple Genetics
5%	Speciation and Evolution
25%	Systematics (Taxonomy)
5%	Ecology
10%	Essay Question (Brings the total for the final to 110% to account for different teaching methods)



Research Paper (25%) – Because this is a college course, literature research and writing is required to properly train your scientific mind. You will choose a topic of your choice, and then you will retrieve information on that subject through traditional and/or electronic means. The world around you is full of questions that need to be answered. You are encouraged to come up with questions of your own, and then design a way to answer those questions. Your topic may require experiments and laboratory work. We will have a brainstorming session on this. You will also be expected to give a short presentation (5-10 minutes) in class on the results of your research and experimentation. There is no set length of the research paper. However, an incomplete or poorly written paper will result in a poor or failing grade. It is advised that you turn in your paper several times for review so that your paper reaches publishable quality. A rough draft will be due the day before Thanksgiving break. The APA format will be followed with a few modifications that will be explained. The following website will show you how to write a good scientific paper:

http://glencoe.mheducation.com/sites/0035456775/student_view0/writing_lab_reports_and_papers.html.

Unit Tests (20%) – There will be four (4) unit tests given throughout this course. An in-depth review period will occur the day before the test. You can expect to be tested on readings, lectures, notes, Internet assignments, and labs. Mr. Brady's policy is that you must score a grade of 80% or higher on all exams, or a zero will be given. If you do not score a 80%, then you must take the test again, but you will only be given a maximum score of 80% on the re-take. To avoid getting only 80% on an exam, do all you can to do well on the exam the first time. Exam 6 will be done online at home during Christmas Break.

Assignments (10%) – Depending on the material presented, the learning level and attentiveness of the class, disciplinary problems, etc., different assignments will be given. Expect to participate in discussions, Internet activities, group work, and homework assignments. You can expect less "busywork" than in other courses, but assignments must be completed on time. You will be given an exact due date for each assignment. Participating in sports and/or other activities does NOT excuse you from completing assignments on time (see policy below). The rare exceptions of family emergencies, health problems, etc. will be taken into consideration. Be sure to keep up and only miss class when it is absolutely necessary.

Laboratories (10%) - The key to taking a science course is to learn to think and work like a scientist. To enhance the scientist within you, you will be expected to apply the rules of the scientific method by making observations, asking questions, forming hypotheses, conducting laboratory and/or field investigations, and drawing conclusions. This course will offer five (5) pre-defined laboratory experiments that will help you understand and apply key biological concepts. Laboratory safety and technique will be addressed prior to any laboratory work being conducted. A laboratory preparation/discussion session will be held the day before the laboratory.

Quizzes (10%) – There will be a total of 24 post-quizzes that you will be expected to take during the course. All quizzes are to be taken online at www.mhhe.com/maderbiology10. You will make a login and password for yourself, and then you are expected to complete each assigned quiz before the given deadline. For most quizzes, the deadline is Sunday night by midnight. Your instructor will tell you the deadline after the completion of associated chapters.

YOUR RIGHTS

In this class you have the right to:

1. A safe learning environment that is free from physical or verbal abuse, intimidation, or harassment, including any and all forms of sexual harassment, obscenity, indecent, or inconsiderate behavior.
2. Report any and all problems or concerns to the teacher without feeling intimidated or afraid that your grade or class standing will suffer.
3. Receive a meaningful and useful education. This means that the teacher will be well prepared, have a variety of learning activities available, and will not waste your time and energy by giving you meaningless "busywork".
4. Have a learning environment that is free of drugs and alcohol.
5. Get all the help you need from the teacher in order to learn the subject matter. Do not be afraid to ask the teacher for help at any time.
6. Know what your grade is at any time. Just ask. Your grades will be posted a minimum of once per week.
7. Make choices and to express your own thoughts and ideas. Be yourself and to have fun while learning.

TENTATIVE COURSE OUTLINE (Subject to Change)

Dates	Chapter(s)	Online Quizzes	Subject
8/20			School begins, Introductions, Syllabus, Books, College Survival Skills, Research Paper
	1	1	A View of Life
	2	2	Basic Chemistry
	3	3	The Chemistry of Organic Molecules
9/1			Labor Day – No School
			Laboratory 1 - Preparation/Discussion
			Laboratory 1 – Diffusion and Osmosis
	4,5	4,5	Cell Structure and Function, Membrane Structure and Function
			Exam 1 Review (Chapters 1 – 5)
			Exam 1 (Chapters 1 – 5)
			President's Day – No School
	6,7	6,7	Metabolism: Energy and Enzymes
			Laboratory 2 – Preparation/Discussion
			Laboratory 2 – Enzyme Catalysis
	8	8	Photosynthesis
			Laboratory 3 – Preparation/Discussion
			Laboratory 3 – Plant Pigments and Photosynthesis
			Exam 2 Review (Chapters 6 – 8)
	8	8	Cellular Respiration
			Exam 2 (Chapters 6 – 8)
10/20-21			Fall Recess – No School
	9	9	The Cell Cycle and Cellular Reproduction
	10	10	Meiosis and Sexual Reproduction
	11, 12	11	Mendelian Patterns of Inheritance, Molecular Biology of a Gene
			Exam 3 Review (Chapters 9 – 13)
			Exam 3 (Chapters 9 – 12)
	18	18	Origin and History of Life
	15, 16, 17	15	Darwin and Evolution, How Populations Evolve, Speciation and Macroevolution
			Laboratory 4 - Preparation/Discussion
			Laboratory 4 – Population Genetics and Evolution
	19	19	Systematics and Phylogeny
			Exam 4 Review (Chapters 15 – 19)
			Exam 4 (Chapters 15 – 19)
11/24			Research Paper Rough Draft Due
11/26-28			Thanksgiving Break
	20	20	Viruses, Bacteria, and Archaea
			Laboratory 5 – Preparation/Discussion
			Laboratory 5 – Gram Staining and Bacterial Culturing
	21	21	Kingdom Protista: Protist Evolution and Diversity
	22	22	Kingdom Fungi: Fungi Evolution and Diversity
			Exam 5 Review (Chapters 20 – 22)
			Exam 5 (Chapters 20 – 22)
	23 - 27	23,24,27	Kingdom Plantae: Evolution, Diversity, Structure, Organization, Growth, Reproduction
	28, 29	28, 29	Kingdom Animalia: Invertebrate Evolution, Vertebrate Evolution
	44 - 46	44,46	Population Ecology, Community and Ecosystem Ecology, Major Ecosystems
12/22			Final Research Paper Due
12/23			Snow College Final Exam (2 hours)

POLICIES AND PROCEDURES CONTRACT

The following the rules are to be followed. A signed parental/agreement must be turned in during the first week of school:

- Materials:** You will have access to an iPad on a daily basis. You may choose to use the iPad for taking notes. Many assignments will also be done on the iPad. You must also bring with you a writing utensil and a notebook. If you must borrow a writing utensil, then you will be required to give up a shoe or your cell phone as collateral.
- Quieting:** When the bell rings, you are expected to be quiet. The student(s) who violate this rule will lose points in Classroom Dojo. You are required to raise your hand if you have questions. Failure to do so will also cost you points.
- Tardies:** A tardy has occurred when the bell rings and you are not in your seat. You will also get a tardy if you attempt to line up at the door prior to the bell ringing at the conclusion of class. Not only will you receive a tardy, but you will also lose points in Classroom Dojo. The third tardy will cost you one hour of restitution and one hour per tardy after that. The fifth tardy will bring about a parent meeting. The sixth tardy will cost you 5 hours of restitution.
- Absences:** You are required to keep up on all your work, regardless of being absent. See late work policy below. School policy says that you are absent if you miss more than 15 minutes of class time. On the 5th absence parents/guardians will be notified. On the 6th absence, you will be required to make up time by attending restitution. As per district policy, after 10 absences you will lose all credit for the class.
- Late work:** You will have one extra day for each day you are absent to make up your work. After that, you will lose 10% on the assignment up to the 5th day. After the 5th day, your work will not be accepted and you will receive a zero on that assignment.
- Extra credit:** Only occasional extra credit will be given, such as during "Giving it back". You cannot use extra credit to make up for incomplete, late, or missing assignments. Extra credit will only be added to your final grade at the end of the quarter.
- Leaving class:** Leaving class is not allowed unless it is an absolute emergency or if you have been called to the office. You must carry a hall pass with you. You will be given two free passes per quarter. After that, you will lose credit in Classroom Dojo for each time you must leave class. Do not abuse this policy or you may not be allowed to leave class at all.
- Disruptions:** A disruption includes talking out of turn, talking back to the teacher, or doing anything that requires the teacher to stop instruction. For the first offense you will get a verbal warning, and it will cost you a point in Classroom Dojo. For the second offense, you will be excused from the class to meet with the vice principal, you will lose credit in Classroom Dojo, and it goes on your school record. For the third offense, you will meet with your parents and/or guardians and the principal, it goes on your school record, and you may be removed from the class.
- Cheating:** Cheating will not be tolerated. For the first offense you will receive a zero on that assignment and loss of points in Classroom Dojo. The second offense will result in an F for the quarter.
- Language:** School policy is to address teachers as Mr., Mrs., or Miss. Coach or principal is also acceptable. Swearing or vulgar language will not be tolerated. You will receive a verbal warning for the first offense and loss of points in Classroom Dojo. Multiple offenses will cost you more points, and you may be referred to the vice principal. Using the "F" word will result in your immediate suspension from school for one day.
- Classroom:** You are not allowed to sit on desks, putting feet on tables, throwing trash in drawers, sinks, or on the floor, or write on school property. If you violate these rules, you will lose credit in Classroom Dojo. The classroom must be cleaned up and put back in order prior to leaving class. Some classes will require the use of the laboratory. The same rules apply in the lab. Any violations will cost you points in Classroom dojo, and you will be required to cleanup after yourself.
- Electronics:** iPads will be used throughout this course. You will sign a care and use agreement before you are allowed to use the iPads. iPads are for school use only. You are not allowed to use the iPads without permission. The iPads are to be left on your desk at all times. The iPads may not be removed from the classroom. Cell phones must be on your desk in plain sight. We will use cell phones from time to time in class for specific activities. If you are caught using a cell phone at all, without permission, you will lose your cell phone and it will be given to the vice principal. Any violations will cost you points in Classroom Dojo. If you have your own tablet device or laptop that you would like to use in class, then please talk personally with the teacher to make proper arrangements to use these devices in class.
- Other rules:** Violating any of the following will cost you points in Classroom Dojo: Lining up at the door before the bell rings, asking the teacher "what are doing today?", forgetting to put your name, date, and period on assignments, not taking notes during class, changing seats without the teacher's permission, talking while the teacher is talking, violating the school dress code in any way, doing other work or reading in class while the teacher is teaching, falling asleep in class, eating food in class (bottled water is ok), not taking the class seriously, not being prepared for class each day, not pushing in your chair when you leave class, touching things in the classroom without the teacher's permission, doodling and drawing while the teacher is teaching, and not being respectful to the teacher and/or fellow students.
- Testing:** All testing for this course will be done online. The tests may be taken on any device that has the Internet. Tests may

be taken at home or at school. If you do not have access to a computer at home, then please talk with the teacher. You may use school computers or iPads to take tests. Tests are also available in a written format if needed. All students must score 80% or higher on all tests. Students are required to retake tests until 80% is achieved. Students may only score 80% on a retake.