

2019-20 BIOLOGY

Instructor: Mr. Mikolay

Room: 57, FSHS

Phone: 724-295-5143, ext: 1557

Email: mikolay@freeport.k12.pa.us



COURSE DESCRIPTION AND OBJECTIVES:

A year-long course required for all sophomores, students in Keystone Biology can expect a comprehensive, systems-based introduction to a number of core topics within the vast discipline of Biology.

Literally translated, Biology is the “study of life.” From the simplest forms to the most complex, from a pool of amino acids to the Olympic athlete and astrobiologist, from the smallest photosynthetic bacteria to the Giant Sequoias of California (*Sequoiadendron giganteum*) – and everywhere in between – wherever there is life, *there is Biology*.

This course will give students the chance to explore a wide range of topics relative to the living world, and hands-on lab activities will accompany class lectures to constitute a percentage of the overall grade.

Topics covered in this course will include the following:

Properties of Life	Meiosis	Niches
Properties of Water	Cell Theory	Humans in the Biosphere
Macromolecules	Cell Transport	The Human Genome
Energy & Enzymes	Photosynthesis	Genetics
Ecology	Cell Respiration	Genetic Mutations
Populations	DNA	RNA & Protein Synthesis
Cell Structure & Function	Biological Organization	Human Heredity
Cell Division	Energy Pyramids	Evolution

KEYSTONE EXAM REQUIREMENT:

The culmination of the year’s instruction will come in May with the state-mandated Keystone Biology exam. All students are required not only to take the test, *but to score in one of its top two categories*.

*While this may seem a stressful requirement – **DO NOT FEAR!** We will continue to work, as we have, to ensure your maximum preparedness for this exam – and I pledge to you that if you give me your best throughout the school year, you will enter the test in May with great confidence in your ability to perform well on the exam.*

Text: Miller, Kenneth R., and Joseph S. Levine. Biology. Boston: Pearson, 2010. Print.

Grading: Tests, quizzes, labs, activities and homework will come together to determine your course grade – with the majority of your grade determined by chapter exams.

Tests & Quizzes: I give quizzes regularly, **usually on Fridays**. Some quizzes will be announced, *others may not*. There will be an exam at the end of each unit.

Chapter Readings: In addition to unit lecture and labs, you will receive regular chapter reading assignments. *It is very important for you to do the reading! Not only will it complement and enrich your instruction, but a portion of all exam questions will come directly from assigned readings.*

Class Conduct: My basic philosophy on class conduct can be summarized by the German writer Johann Wolfgang von Goethe, who wrote: “Treat a person as they are and they will remain as they are. Treat a person as they can and should be, and he or she will become what they can and should be.” My belief is that you can and should be a mature and hardworking student who shows respect to his/her teachers and peers. Unless you show me otherwise, that is exactly how you can expect to be treated by me.

Cell Phones: Each student will be assigned a numbered slot to place their cell phone in each day at the beginning of class. All student phones will be turned to silent mode or off, and must reside in this holder unless we need to use our phones for class – in which case I will let you know. On days with double lab, students may get and use their phones between the two class sessions, but must then place their phones back in the holder before start of the second session.

Grading Scale: A = 91 – 100%; B = 81 – 90%; C = 70 – 80%; D = 60 – 69%; F = 59 or below

****AN IMPORTANT NOTE ABOUT HABITUAL ABSENCES:**

We all miss school from time to time – occasional absences are the norm. That being said, it is highly advised that you prioritize this class in your schedule. If you have to make an appointment, try to make it for outside of class time. If you belong to clubs or activities that excuse you from class, know that you are responsible for independently making up whatever you miss during those absences. It is my experience that students who miss several class sessions during a quarter (for any reason) almost always find those absences impacting their grade. **Simply put: there is no substitute for attending class.**

Keystone Exam Scale Score Ranges

Content Area	BELOW BASIC	BASIC	PROFICIENT	ADVANCED
Algebra I	1200–1438	1439–1499	1500–1545	1546–1800
Biology	1200–1459	1460–1499	1500–1548	1549–1800
Literature	1200–1443	1444–1499	1500–1583	1584–1800