Biology 20 Course Outline

# Block 2. Ms. Redding, Room 213

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My goal is to create a safe, engaging environment where students can take risks, grow and develop the necessary confidence to overcome obstacles and challenges. These expectations and routines are in place in order to help every student in the classroom succeed in this course. If I am concerned about your success in any way, I may contact your parents/guardians and/or the administration for further support.

**Classroom Expectations and Routines**

Absences: You are expected to take an active part in your schooling. For this reason, you are responsible for finding out about missed assignments as well as what went on in class while you were absent. You will absolutely not be hunted down over missed work! This includes information about exams and quizzes. The excuse “I wasn’t here so I didn’t know”, has no validity in this classroom. Finally, class time will not be used to catch you up in any way.

Eating/drinking: Any food or drink brought to class must not be disruptive and must be cleaned up after. Abuse of this guideline will result in the privilege being taken away. No food or drink is allowed during labs.

Late for class: Please be on time as it is disruptive for the class if you are late. If you are late please enter the classroom quietly.

Leaving class: Please ask me for permission should you need to leave class. To further avoid disruption, I ask that only one student be out at a time, so please be considerate of others and keep your breaks short. Abusing a break (ex. wandering the halls/hanging out) will result in the loss of this privilege. If you need to leave class early for other commitments please let me know ahead of time.

Cell phones: Please no cell phone use during class. Phones should be turned off and kept out of sight at all times.

Laptops/iPods/MP3 players: These devices are permitted only during seat work (not during lesson time). Electronic devices of any type are prohibited in any examination (including quizzes).

Be respectful to everyone in the classroom: That includes listening while others are speaking, respecting other’s property and use of appropriate language (ex. no swearing).

Biology 20 is a rigorous science program designed for students with a strong aptitude and keen interest in the biological world and who are intending to pursue post-secondary studies in a science program especially in health sciences or environmental sciences.  Students will explore living systems using matter and energy from the cellular level to the global level and develop an understanding of technology as it affects everyday life and experiences.

The **recommended** prerequisites for Biology 20 are:  65% or more in Science 10. Students with below a 65% will be put on probation and a letter will be sent home for parents to sign.

**Unit I Ecology (3 weeks)**

Biosphere

Biogeochemical Cycles

Thermodynamics (Energy Flow)

**Unit II Ecosystems and Population Change (3 weeks)**

Aquatic Ecosystems

Terrestrial Ecosystems

Fossils and Geological Time

Structures and Other Evidence

Natural Selection

Adaptation

**Unit III Cellular Energy (3 weeks)**

Photosynthesis

Respiration

**Unit IV Exchange of Matter and Energy in the Human Organism (8 weeks)**

Cells, Biochemistry and Enzymes

Digestion

Circulation, Blood and Immunity

Breathing

Excretion

**Field Trips:**  A field study is a mandatory part of the Biology 20 program.  Further information will be provided in class.

**Evaluation/Assessment:**

The course is composed of 4 units. There will be daily formative course work and it is essential that this work is completed to ensure success on summative work.

Students will be evaluated on their summative course work – tests, quizzes, lab reports and Unit Exams.

Biology 20 consists of four units of study:

1. Matter and Exchange in the Biosphere – 20% of course work
2. Ecosystems and Population Change – 25% of course work
3. Photosynthesis and Cellular Respiration – 15% of course work
4. Body Systems ­– 40% of course work

Within each unit, 60% of the student’s grade comes from quizzes and assignments; the remaining 40% will come from Unit exams and tests.