

SBI4U COURSE OUTLINE AND EVALUATION BREAKDOWN

Course Outline:

Throughout the course students will be participating in labs and activities that support the curriculum, as well as reinforce the scientific method and the links between science and society.

Students in the AP class will be evaluated in the exact same way as students in other classes, thus earning the same credit. However, AP students will have a semester supplemented with extra information that is present in the AP curriculum, but not in the Ontario curriculum. Thus, the class moves at a slightly faster pace.

Unit 1: Biochemistry

This unit will focus on the major macromolecules that make up living organisms, as well as how those macromolecules work together to create cell structures, particularly the cell membrane. Transport mechanisms across the membrane are also studied.

Unit 2: Metabolic Processes

This large, intense unit covers, at the molecular level, the details of cellular respiration, photosynthesis and other metabolic processes. The overall concept of energy flow is emphasized.

Unit 3: Molecular Genetics

Building on their foundation of Mendelian genetics in grade 11, this unit focuses on the DNA Replication, Protein Synthesis and introduces the biotechnological world through its tools and techniques, and how they are affecting society.

Unit 4: Homeostasis

This unit covers, in fine detail, the nervous system, the endocrine system, and the excretory system, all under the umbrella concept of homeostasis – maintenance of a suitable environment, within your body, in which to survive.

Unit 5: Population Dynamics

Through mathematical, conceptual and activity-based models, this unit explores the study of populations and the factors that affect them.

Evaluation:

Course Work	70%
Summative	15%
Final Exam	15%
<hr/> TOTAL	<hr/> 100%