

## Introductory High School Biology

***Instructor: Anmol Bhatia***

### ***Course Description***

This course will be conducted online and is intended to teach and prepare students for High School Biology. There will be an emphasis on analysis and critical thinking skills over memory of topics. Students will learn everything necessary to get them an A in High School Biology. Students will also learn how to comprehend long articles and passages quickly, as well as analyze these to the maximum. Skills gained here will not only prepare students for Biology but other academic courses they may take.

### ***Course Goals***

Students who successfully complete this course will:

- Be able to analyze and comprehend long passages to answer questions
- Be able to articulate their thoughts in long or short essay questions
- Have a firm understanding of topics taught in this course

### ***Curriculum***

#### **❖ Unit 1: Introduction**

- What is Science?
- How do we study it?

#### **❖ Unit 2: The Chemistry of Life**

- What are atoms?
- How do they bond?
- What basic molecules make up life?

#### **❖ Unit 3: Cells**

- What makes up cells?
- How do cells interact with their environment?

#### **❖ Unit 4: Energy, Photosynthesis, and Respiration**

- What is energy?
- How do plants make energy from sunlight?
- How do animals make energy from food?
- What are alternate methods to create energy?

❖ **Unit 5: The Cell Cycle**

- How do cells replicate?
- How does this cycle affect reproduction in humans?

❖ **Unit 6: Genetics**

- How does our DNA make us who we are?
- What processes help make proteins?
- What are Genes?

❖ **Unit 7: Evolution**

- Who was Darwin?
- What is Natural Selection?
- What is evidence for evolution?

❖ **Unit 8: Problem Solving**

- How do we answer long-answer questions?
- How do we write up lab reports?

❖ **EXTRA - Unit 9: Plants**

- What makes up plants?
- What are the major types of plants?