**Grade 11 Biology (BI30S) Course Description**

The Grade 11 Biology course is focused on human body systems and organs, with a major theme being our body’s homeostatic balance. Students may recall that human reproductive systems were studied in grade 9 science, but most material in this course is new.

**Course Modules:**

Below is a breakdown of the course topics:

**Module 1: Wellness and Homeostasis**

* health and wellness, personal wellness
* homeostasis in body systems, cell processes, energy and life

**Module 2: Digestion and Nutrition**

* parts of the human digestive tract, chemical digestion, nutrients and nutrition

**Module 3: Gas Exchange**

* parts of the respiratory system, lung capacity, the chemistry of respiration

**Module 4: Circulation**

* structure of the heart and blood vessels, structure of the lymphatic system
* heart rate, stroke volume, and blood pressure

**Module 5: Blood and Immunity**

* blood components, blood cell types, blood type, the blood and homeostasis
* the immune system, non-specific defenses and specific defenses

**Module 6: Excretion**

* organs of the excretory system, the chemistry of absorption and excretion

**Module 7: Control Mechanisms**

* homeostatic function of the endocrine system, mechanisms of hormone action
* structure and function of the nervous system, types of nervous response

**Module 8: Wellness and Homeostatic Changes**

* responses to changing conditions
* theories of aging, life expectancy, aging and wellness

**Evaluation:**

There are approximately 10 assignments and 5 tests.

* Assignments – 40%
* Tests – 50%
* Final Exam – 10%

**Class Schedule:**

Due dates for assignments and tests are pre-scheduled to help students stay on track with the timing of the course. To stay on pace with the course, students can expect to spend about 1 hour each day learning the course content, and working through assignments and tests.

Each Module consists of multiple lessons that cover the content of the course. Lessons consist of content information and explanations, learning activities and practice exercises.

As students work through the course, they are encouraged to email their teacher if they have questions about any of the content or practice questions.

**Required Materials:**

Students will need the following:

* Computer with working camera/microphone
* Pen/Pencil
* Eraser
* Paper