

Orangeville District Secondary School

Course Title: Grade 11 College Biology

Prerequisite: Grade 10 Applied Science

Course Code: SBI 3C1

Course Description

This course focuses on the processes that occur in biological systems. Students will be introduced to, conduct investigations in and think critically in the areas of internal systems, cellular biology, microbiology and genetics. Emphasis will be placed on the practical application of concepts and the skills needed for further study in various branches of the life sciences and related fields.

Genetics

Biotechnology tools have a variety of social, environmental and ethical implications.

Question: Should biotechnology be allowed to design future generations?

Internal Systems I

Organ systems have specific structures and functions to support homeostasis

Question: Should we be raising more money for digestive or cardiopulmonary research?

Balance of Life

SBI 3C
Units

Big Ideas
Thinking Question

How has your
understanding of life
changed?

Internal Systems II - Dissection

Foetal pig anatomy can promote further medical advancements to support human health

Question: Should humans accept pig heart transplants?

Microbiology

Characteristics of microorganisms can support or harm the environment human health

Question: Justify how microbes can be both helpful and harmful to human health.

Question: Should humans accept pig heart transplants?

Cellular Biology

Cells support homeostasis with specific structures and functions that react to changing environmental conditions

Question: Defend why you feel the cell membrane is efficient at maintaining homeostasis.

Nutrients and Metabolism

Energy metabolism includes processes support homeostasis in plants and animals though the use macromolecules

Question: Which macromolecule do you think is more important to the body? Or Can you justify GMO's?

Course Website:

www.ugdsb.on.ca/odss/science