

**Guelph Collegiate Vocational Institute
Upper Grand District School Board**

Course Outline



Department: Science

Course Title: Biology – College Level

Course Type:

Grade: 11

Course Code: SBI 3C

Credit Value: 1.0

Department Head: Carrie Warren

Teachers: Susan Lodge

Teacher email: (not mandatory)

Date of Development: Fall 2015

Curriculum Document: (copy subject-specific document from secondary curriculum website)

http://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11_12.pdf

Course Prerequisites/Corequisites:

SNC 2P or SNC 2D

Course Description:

This course focuses on the processes that occur in biological systems. Students will learn concepts and theories as they conduct investigations in the areas of cellular biology, microbiology, genetics, the anatomy of mammals, and the structure of plants and their role in the natural environment. Emphasis will be placed on the practical application of concepts, and on the skills needed for further study in various branches of the life sciences and related fields.

Term Work (70% of the final mark)

Unit Title, Big Ideas, and Unit Culminating Tasks

Cellular Biology

Life processes are determined by the structures and functions of biochemical compounds, cell organelles, and body systems.

Technological devices that support cellular functions and processes can be used to improve human health.

Substances that are present in our everyday lives can affect cellular functions and processes in positive and negative ways.

Unit Culminating Task: Unit test, assignment and/or cell biology lab

Microbiology

Groups of microorganisms have common characteristics, and these characteristics enable them to interact with other organisms in the environment

Microorganisms can have both positive and negative effects on the environment.

The technological use of microorganisms raises many ethical issues.

Unit Culminating Task: Unit test, assignment and/or microbiology lab

Genetics

Genetic research and biotechnology have social, environmental, and ethical implications.

Variability and diversity of living organisms result from the distribution of genetic materials during the process of meiosis.

Unit Culminating Task: Unit test, assignment and/or genetics lab

Anatomy of Mammals

Groups of organs with specific structures and functions work together as systems, which interact with other systems in the body.

Technologies that are used to maintain human health have social and economic benefits and costs.

Environmental factors, including natural factors and those resulting from human activity, can have a wide range of effects on human health.

Unit Culminating Task: Unit test, assignment and/or anatomy lab

Plants in the Natural Environment

Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment.

Plants are critical to the survival of ecosystems.

Humans affect the sustainability of ecosystems when they alter the balance of plants within those ecosystems.

Unit Culminating Task: Unit test, assignment and/or plants lab

Culminating Tasks/Exams (30% or the final mark)

Course Culminating Task/Exams and Description

Final written exam covering all units.

Based on the range of students' learning needs, a selection from the strategies listed below may be utilized. Refer to [list of teaching and assessment strategies](#).

Teaching Strategies:

lecture,
class discussion,
textbook assignments,
educational films,
laboratory experiments,
laboratory activities,
use of diagrams, photographs, tables, graphs, and charts

Assessment and evaluation strategies:

formative assessment
summative assessment
unit tests
laboratory experiments and activities
written assignments

Textbooks/Learning Resource Materials (align with Policy 603)

Biology 11 – College Level

Fees for Learning Materials/Activities

Learning Materials/Activities	Cost

Please refer to the [GCVI Student Handbook](#) for our school policies on:

- academic integrity
- late and missed assignments