

SOUTH CARLETON HIGH SCHOOL

Ottawa-Carleton District School Board

COURSE OUTLINE

SBI3C - GRADE 11 College Prep Biology

Credit Value: 1 credit

Hours: 110

Prerequisite: SNC2D

Expectations

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.

Big Ideas

| Unit Title | Biology Focus For Learning Expectations Big Ideas |
|--------------------------------------|---|
| Cellular Biology | <ul style="list-style-type: none">Life processes are determined by the structures and functions of biochemical compounds, cell organelles and body systems.Substances that are present in our everyday lives can affect cellular functions and processes in positive and negative ways. |
| Microbiology | <ul style="list-style-type: none">Groups of organisms 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. |
| Genetics | <ul style="list-style-type: none">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 |
| Anatomy of Mammals | <ul style="list-style-type: none">Groups of organs with specific structures and functions work together as systems that interact with other systems in the body.Technologies that are used to maintain |
| Plants: Anatomy, Growth and Function | <ul style="list-style-type: none">Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment. Plant variety is critical to the survival and sustainability of ecosystems. |

**NOTES: a. Specific learning expectations are available for each unit of study. b. The sequence of topics may not be exactly as listed above.*

Accommodations for Exceptional Students

The Science department makes every effort to accommodate the identified needs of exceptional (IPRC'd) students and will attempt to differentiate curriculum delivery methods, student modes of expression, and assessment methods as recommended by the student's individual education plan (IEP).

Career Planning

The Science department makes every effort to ensure that students are aware of career opportunities related to various fields of science under study, and describe the contributions of scientists, including Canadians, to those fields.

Technology

The school will supply all necessary laboratory resources and materials.

Evaluation

| Term Evaluations (70%) | Summative Evaluation (30%) |
|--|---|
| Students will be evaluated according to the overall expectations of the Ontario curriculum. <i>Assessment tools include both summative and formative tasks including but not limited to; tests/quizzes, assignments, projects, lab reports, skill based performance tasks and rich assessment tasks</i> | <i>The exam portion of the summative will occur during the exam period in Jan/June and will evaluate the whole semester's work. All students must be present.</i> <i>Project or assignment portion of the summative will be completed before the exam period begins.</i> |

More information on South Carleton High School's policy on Assessment and Evaluation, on Academic Integrity, on punctuality, absenteeism and examinations can be accessed on our school website.