

**SOUTH CARLETON HIGH SCHOOL****Ottawa-Carleton District School Board****COURSE OUTLINE****SBI3C - GRADE 11 College Prep Biology**

Credit Value: 1 credit

Hours: 110

Prerequisite: SNC2P/SNC2D/SNC2DF

**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"> <li>Life processes are determined by the structures and functions of biochemical compounds, cell organelles and body systems.</li> <li>Technological devices that support cellular functions and processes can be used to improve human health.</li> <li>Substances that are present in our everyday lives can affect cellular functions and processes in positive and negative ways.</li> </ul>
Microbiology	<ul style="list-style-type: none"> <li>Groups of organisms have common characteristics and these characteristics enable them to interact with other organisms in the environment.</li> <li>Microorganism can have both positive and negative effects on the environment.</li> <li>The technological use of microorganisms raises many ethical issues.</li> </ul>
Genetics	<ul style="list-style-type: none"> <li>Genetic research and biotechnology have social, environmental and ethical implications.</li> <li>Variability and diversity of living organisms result from the distribution of genetic materials during the process of meiosis</li> </ul>
Anatomy of Mammals	<ul style="list-style-type: none"> <li>Groups of organs with specific structures and functions work together as systems that interact with other systems in the body.</li> <li>Technologies that are used to maintain</li> </ul>
Plants: <i>Anatomy, Growth and Function</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>

\*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 and Textbooks**

The school will supply all laboratory resources and materials.

Textbook: *Biology 11 College Preparation, DiGiuseppe, Fraser, LeDrew* (Nelson) replacement cost = \$68.00

**Evaluation**

Term Evaluations (70%)	Summative Evaluation (30%)
Students will be evaluated according to the overall expectations of the Ontario curriculum. 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	<p>The exam portion of the summative will occur during the exam period in Jan/Jun and will evaluate the whole semester's work. All students must be present unless a medical certificate is provided.</p> <p>Project or assignment summative evaluation will be completed before the exam period begins.</p>

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.