***SIR WILFIRD LAURIER SECONDARY SCHOOL***
***Grade11 French immersion Biology (SBI3UF)***

OTTAWA-CARLETON
DISTRICT SCHOOL BOARD

## *COURSE DESCRITPION:*

This course furthers students' understanding of the processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biodiversity; evolution; genetic processes; the structure and function of animals; and the anatomy, growth, and function of plants. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation.

## *COURSE MATERIALS:*

- Biologie 11 (Chenelière McGraw-Hill)
- Variety of handouts and notes

## *COURSE CONTENT: STRANDS AND SUBGROUPS:*

### *Scientific Investigation Skills and Career Exploration*.

**A1.** demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating);

**A2.** identify and describe careers related to the fields of science under study, and describe the contributions of scientists, including Canadians, to those fields.

### *Diversity of Living Things*.

**B1**. analyse the effects of various human activities on the diversity of living things;

**B2**. investigate, through laboratory and/or field activities or through simulations, the principles of scientific classification, using appropriate sampling and classification techniques;

**B3**. demonstrate an understanding of the diversity of living organisms in terms of the principles of taxonomy and phylogeny.

### *Evolution*

**C1.** analyse the economic and environmental advantages and disadvantages of an artificial selection technology, and evaluate the impact of environmental changes on natural selection and endangered species;

**C2**. investigate evolutionary processes, and analyse scientific evidence that supports the theory of evolution;

**C3.** demonstrate an understanding of the theory of evolution, the evidence that supports it, and some of the mechanisms by which it occurs.

### *Genetic Processes*

**D1**. evaluate the importance of some recent contributions to our knowledge of genetic processes, and analyse social and ethical implications of genetic and genomic research;

**D2.** investigate genetic processes, including those that occur during meiosis, and analyse data to solve basic genetics problems involving monohybrid and dihybrid crosses;

**D3**. demonstrate an understanding of concepts, processes, and technologies related to the transmission of hereditary characteristics.

### *Animals: Structure and Function*

**E1.** analyse the relationships between changing societal needs, technological advances, and our understanding of internal systems of humans;
**E2.** investigate, through laboratory inquiry or computer simulation, the functional responses of the respiratory and circulatory systems of animals, and the relationships between their respiratory, circulatory, and digestive systems;
**E3.** demonstrate an understanding of animal anatomy and physiology, and describe disorders of the respiratory, circulatory, and digestive systems.

### *Plants: Anatomy, Growth, and Function*

**F1.** evaluate the importance of sustainable use of plants to Canadian society and other cultures;
**F2.** investigate the structures and functions of plant tissues, and factors affecting plant growth;
**F3.** demonstrate an understanding of the diversity of vascular plants, including their structures, internal transport systems, and their role in maintaining biodiversity.

***ATTENDANCE & MISSED EVALUATIONS***

Regular attendance is an integral part of learning. Students are responsible for completing all work missed due to absence. Any missed term evaluations (e.g. test) students must complete the missed evaluations upon return to school.

End-of course evaluations, i.e. the summative activity and final examination are term sensitive. Attendance is ***mandatory*** for these evaluations. Any absence will result in a mark of ***zero***, unless validated by a doctor's certificate.

If a student participates in ***academic fraud*** (e.g. cheating on tests, plagiarism in assignments), he/she is deemed not to have met the expectations associated with that particular evaluations. If work is not handed in on time a mark deduction will be applied. If the work is more than 5 days late a mark of ***zero*** may be assigned.

***GENERAL COURSE INFORAMTION:***

Students ***must bring*** *the* following materials to each class:

- Separate binder with dividers (to hold notes, test, quizzes, handouts)
- Lined paper
- calculator
- Pencil case (two different coloured pens, pencils, erasers, white out)

**COURSE FEE:**

If lost or damage to the course manual a fee will apply. The manual cost is $130.00 for this course;

**EVALUATION**

The final report card mark will be determined as follows:

| **Term work – 70%** | **Percent Weight** |
|---|---|
| Quizzes, tests, assignments and lab reports | 70 % |
| **Summative – 30%** | **Percent Weight** |
| Exam and/or Research presentation | 30.00% |