Developed: 2015 Revised: January 2018



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www.ugdsb.on.ca/westside

Course: SBI3U	Teacher	<b>Phone Extension</b>	Email
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**Course Description:** 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.

**Prerequisite:** Grade 10 Academic Science (SNC2D)

**Big Ideas:** The curriculum in each unit targets "Big Ideas" that are laid out by Ontario's Ministry of Education and adapted by Westside teachers. The following chart outlines the Big Ideas being explored and evaluated in each unit of this course. For more information on the overall course expectations, visit

http://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11 12.pdf.

Unit of Study	Big Ideas
Diversity of Living Things	<ul> <li>All living things can be classified according to their anatomical and physiological characteristics.</li> <li>Human activities affect the diversity of living things in ecosystems.</li> </ul>
Genetic Processes	<ul> <li>Genetic and genomic research can have social and environmental implications.</li> <li>Variability and diversity of living organisms result from the distribution of genetic material during the process of meiosis.</li> </ul>
Evolution	<ul> <li>Evolution is the process of biological change over time based on the relationships between species and their environments.</li> <li>The theory of evolution is a scientific explanation based on a large accumulation of evidence.</li> <li>Technology that enables humans to manipulate the development of species has economic and environmental implications</li> </ul>
Animals: Structure and Function	<ul> <li>Groups of organs with specific structures and functions work together as systems, which interact with other systems in the body.</li> <li>The development and uses of technology to maintain human health are based, in part, on the changing needs of society.</li> </ul>
Plants: Anatomy, Growth and Function	<ul> <li>Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment.</li> <li>Plant variety is critical to the survival and sustainability of ecosystems.</li> </ul>

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**Instructional Strategies:** Westside teachers use a variety of instructional strategies to help students develop and improve skills in the following areas: character, citizenship, communication, critical thinking and problem solving, collaboration and teamwork, and creativity and imagination.

**Achievement Categories:** Student learning is assessed and evaluated in a balanced manner with respect to the following four interrelated categories of knowledge and skills.

Knowledge & Understanding
Thinking & Inquiry
Communication
Application

**Assessment and Evaluation:** Assessments for and as learning are used to improve student success by providing opportunities to demonstrate understanding of course expectations prior to the evaluation of learning. Evaluations of learning are where students demonstrate their understanding of Big Ideas and key expectations. Failure to complete an evaluation of learning may result in the credit not being granted because certain expectations of the course have not been met.

Term Work Evaluations 70%	Final Evaluation(s) 30%
Diversity Unit: Test and Inquiry Activity	Culminating Activity (4%)
Genetics Unit: Test and Inquiry Activity	Exam (26%)
Evolution Unit: Test and Inquiry Activity	
Animal Anatomy Unit: Test and Lab Activity	
Plant Anatomy Unit: Test and Lab Activity	

#### **Late Work**

Students are expected to complete all assigned work and submit it by the teacher's established due date. Every
attempt will be made to encourage students to complete all assigned work on time so their grade represents their
actual achievement. For late and missed summative assessments, please see the Westside Students' Contract for
Missing Evidence of Learning.

### **Safety Agreement**

All students will receive a safety agreement and will sign and return the UGDSB Student Safety Agreement.

### **Textbook**

Nelson Biology 11 – replacement fee for a lost or damaged textbook is \$90

#### **Enhancement Fee**

- Voluntary enrichment fees may apply to this course. If a student does not pay, he/she will not be able to complete the activity but will still be able to meet the course expectations.
- \$10.00 for a fetal pig dissection (\$30/pig working in a group of 3)

# **Electronic Devices**

The science department at Westside S.S. has a policy that no electronic devices (e.g. cell phones, tablets, iPods, mp3 players etc.) are allowed during evaluations. For this reason, students are reminded to bring a scientific calculator when needed.

## **Classroom Rules**

 Students are expected to follow the rules of conduct, as referenced on the school's web site: <a href="http://www.ugdsb.on.ca/westside/">http://www.ugdsb.on.ca/westside/</a>.

In addition to these general rules of Westside Secondary School, the rules for the science classroom are as follows:

- no food or drink of any kind is allowed in a science classroom
- respect the people, equipment, and furnishings of the science classroom

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- immediately stop any activity and give your attention to the teacher when asked to do so
- summative evaluations of learning will not leave the classroom, but are available for students to discuss with the teacher