

<p>Course Description:</p> <p>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.</p>	<p>Level: University</p>
	<p>Credit Value: 1.00</p>
	<p>Pre-requisite: SNC2D</p> <p>Department: SCIENCE</p>
<p>Course Fees: None</p>	

<p>Textbooks & Resources:</p> <ul style="list-style-type: none"> · <i>The Ontario Curriculum, Grades 11 and 12 Science, Revised 2008</i> · <i>Growing Success: Assessment, Evaluation and Reporting in Ontario Schools, First Edition, Covering Grades 1 to 12, 2010</i> · <i>Biology 11</i>, Dulson, J., Fraser, D., LeDrew, B., Vavitsas A., published by Nelson, 2011
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Course Evaluation: Student Evaluation consists of three components...

<p>1) Learning Skills & Work Habits:</p> <p>Students are evaluated on 6 Learning Skills & Work Habits and are evaluated on a scale of Excellent (E), Good (G), Satisfactory (S) & Needs Improvement (N) and reported on the report card.</p>	<p>The skills and habits consist of:</p> <ul style="list-style-type: none"> · Responsibility · Organization · Independent Work · Collaboration · Initiative · Self-Regulation 		<p>Skills and work habits are not included in the student’s final mark unless specified in the curriculum expectations.</p>									
<p>2) Term Mark (Assessment of Learning):</p> <p><i>It is the student’s responsibility to submit evidence of the term’s learning in a complete and timely manner.</i></p> <p>Student performance standards for knowledge and skills are described in the curriculum Achievement Chart. The curriculum expectations in science are grouped in three categories as follows:</p> <p>1. Understanding Basic Concepts 2. Developing Skills of Investigation and Communication 3. Relating Science to Technology, Society, and the Environment</p>	<p>The term evaluation consists of:</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 60%;">Knowledge</td> <td style="width: 20%;">30%</td> <td rowspan="4" style="width: 20%; text-align: center; vertical-align: middle;">70%</td> </tr> <tr> <td>Inquiry</td> <td>15%</td> </tr> <tr> <td>Communication</td> <td>15%</td> </tr> <tr> <td>Application</td> <td>10%</td> </tr> </table>		Knowledge	30%	70%	Inquiry	15%	Communication	15%	Application	10%	
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Inquiry	15%											
Communication	15%											
Application	10%											
<p>3) Final Evaluation (Assessment of Learning):</p> <p>The written exam will be administered during the school’s final exam schedule. The final evaluation accounts for 30% of the final mark.</p>	<p>The final evaluation consists of:</p> <ul style="list-style-type: none"> · Written Exam 		<p>30%</p>									

Final Mark = 70% Term Mark + 30% Final Evaluations

For a detailed description on Course Evaluation, see “How Did I Get That Mark!” at www.satec.on.ca

Please retain this page in the front of your notebook for future reference.



Scarborough Academy for Technology,

Course Conduct Policies: See Student Agenda.

Course Outline:			
Unit	Description	Approximate Length	Major Unit Evaluation
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.	4 weeks	Unit Test
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.	4 weeks	Unit Test
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.	3 weeks	Unit Test
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.	3 weeks	Unit Test
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.	4 weeks	Unit Test
Skills & Careers	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.	Present in each unit.	
Note:	All of the above units will include tests, quizzes, labs, and assignments.		
Note: The order in which units are delivered may change due to student needs and resources available during the course.			

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<p>General Information:</p> <p>1 – As per SATEC school policy students are expected to come to class:</p> <ul style="list-style-type: none"> a) in uniform and, b) with cell phones, mp3 players etc... unseen and not in use during class time. <p>2- <u>To be successful in science, students are expected to:</u></p> <ul style="list-style-type: none"> a) come to class prepared with pen/pencil, paper, binder and resources for your particular science course, b) demonstrate academic honesty with their own work and when working with others, c) complete assignments in a timely manner and, d) follow necessary safety rules and procedures of a science lab. <p>3- <u>To seek extra help:</u></p> <ul style="list-style-type: none"> a) speak to your Science Teacher and schedule a time to meet, b) use the school's homework club to access peer tutors and/or, c) speak to your guidance counsellor to arrange for a tutor. 	<p>Science Department deadlines and plagiarism policy.</p> <ul style="list-style-type: none"> • Each assignment will have a due date. Handing in an assignment after the due date may result in a deduction of marks at the discretion of the teacher. • Students must be in class on dates of any major evaluations. IF you miss a major evaluation (i.e. unit test, exam, presentation) you must give your teacher a note written and signed by your doctor or parent stating the health reasons that kept you from class. Without a doctor's note, you will receive a mark of zero for that missed major evaluation • If you know ahead of time that you will have an appointment, field trip, game, etc at the same time as the major evaluation, you must either arrange with your teacher to complete the evaluation before the scheduled date, or cancel your other plans so you can attend the evaluation. • Plagiarism includes: copying another student's work; buying essays; copying and pasting Web info and calling it your own work; using information from print or Internet media without identifying the source. • To avoid plagiarism: Do not cheat; Do not copy. Keep your eyes on your own paper during tests and exams. Do not steal intellectual property. Reference information properly (MLA) We only need to suspect cheating to penalize you. There will be no warnings, only marks of zero.
<p>This course meets Environment and ICT SHSM program requirements.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	