



## Islamic Foundation School Course Outline

<b>Course Title:</b> Biology 11	
<b>Course Code:</b> SBI3U	
<b>Course Type:</b> Academic	
<b>Grade:</b> 11	
<b>Credit Value:</b> 1.0	
<b>Prerequisites:</b> SNC2D	
<b>Co requisites:</b> None	
<b>Course developed by:</b> Fazeel Siddiqui	<b>Date:</b> August 20 <sup>th</sup> 2014
<b>Course Revised by:</b> Fazeel Siddiqui	<b>Date:</b> August 31 <sup>st</sup> 2015
<b>Course based on Ministry curriculum document:</b> Ministry of Education Curriculum Document 2008 titled as: “Science; The Ontario Curriculum; Grades 11 and 12”	



## ISLAMIC FOUNDATION SCHOOL

### Course Outline – Biology (SBI3U)

Course Type: Academic, Grade: 11, Credit Value: 1.0

Prerequisite: SNC2D, Co-requisite: None

Department: Science

Teacher: Fazeel Siddiqui

#### *Course Description / Rationale*

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.

#### *Overall Curriculum Expectations*

By the end of this course, students will:

- 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 principals of scientific classification, using appropriate sampling and classification techniques;
- B3.** demonstrate an understanding of the diversity of living organisms in terms of the principals of taxonomy and phylogeny.
- 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.
- 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 analyze data to show basic genetic problems involving monohybrid and dihybrid crosses;
- D3.** demonstrate an understanding of concepts, processes and technologies related to the transmission of hereditary characteristics.
- 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;
- E.3** demonstrate and understanding of animal anatomy and physiology, and describe disorders of the respiratory, circulatory, and digestive enzymes.
- F1.** evaluate the importance of sustainable use of plants to Canadian society and other cultures;
- F2.** investigate the structure and functions of plant tissues, and factors affecting plant growth;
- F3.** demonstrate an understanding of diversity of vascular plants, including their structures, internal transport systems, and their role in maintaining biodiversity.

## ***Outline of Course Content***

<b><u>Unit</u></b>	<b><u>Title</u></b>	<b><u>Chapters</u></b>	<b><u>Approximate Hours</u></b>
<b>1</b>	<b>Diversity of Living Things</b>	<b>1-3</b>	<b>25</b>
<b>2</b>	<b>Genetic Processes</b>	<b>4-6</b>	<b>20</b>
<b>3</b>	<b>Evolution</b>	<b>7-8</b>	<b>20</b>
<b>4</b>	<b>Animals: Structure and Function</b>	<b>9-11</b>	<b>25</b>
<b>5</b>	<b>Plants: Anatomy, Growth, and Function</b>	<b>12-13</b>	<b>20</b>

### ***Teaching & Learning Strategies***

In this class, a variety of teaching strategies will be used to enhance students learning. These include (but are not limited to): note taking, interactive lessons, cooperative work, investigations through experiments and laboratory work, independent learning and study notes.

### ***Learning Skills:***

In addition to earning a mark on the report card, Learning Skills will be evaluated as outlined by **Growing Success. Assessment, Evaluation and Reporting in Ontario Schools. 2010**. The Learning Skills are: Responsibility, Organization, Independent Work, Collaboration, Initiative, and Self-Regulation. The Learning Skills are evaluated using four-point scale: E for Excellent, G for Good, S for Satisfactory, and N for Needs Improvement

### ***Obtaining Extra Help:***

Students are expected and encouraged to seek extra help from the teacher when needed. The teacher will inform the students of his/her availability and the students are expected to make use of the hours allocated for extra help. Class remedial sessions will also be conducted throughout the term and will be scheduled based on student/teacher consensus.

### ***Late Assignment Submission Policy***

*“Students are responsible not only for their behaviour in the classroom and the school but also for providing evidence of their achievement of the overall expectations within the time frame specified by the teacher, and in a form approved by the teacher.”* **Growing Success, page 43**. If a student has not already procured an extension from a teacher and does not meet assignment deadlines, he/she has up until the time the marked assignments are returned to submit the work for a full mark. Any work submitted after this will be marked and given a mark up to 50.

### ***Achievement Policy***

For Grades 9 to 12, a final grade (percentage mark) is recorded for every course. The final grade will be determined as follows:

- Seventy per cent of the grade will be based on evaluation conducted throughout the course. This portion of the grade should reflect the student's most consistent level of achievement throughout the course, although special consideration should be given to more recent evidence of achievement.
- Thirty per cent of the grade will be based on a final evaluation administered at or towards the end of the course. This evaluation will be based on evidence from one or a combination of the following: an examination, a performance, an essay, and/or another method of evaluation suitable to the course content. The final evaluation allows the student an opportunity to demonstrate comprehensive achievement of the overall expectations for the course. **Growing Success.**

### **Assessment, Evaluation and Reporting in Ontario Schools. 2010**

Homework is an essential part of each department's curricula and students are responsible for all work assigned in each class. On-going assessment will occur to allow all students the opportunity to be successful. Students will be evaluated in all four categories of the achievement chart.

### ***Overall Assessment Breakdown***

<b>Term Work (70%)</b>	<b>Category Weight</b>
Labs & Assignments (30%)	Knowledge & Understanding (50%)
Quizzes (15%)	Communication (20%)
Tests (25%)	Application (15%)
	Thinking/Inquiry (15%)
<b>Cumulative Evaluation (30%)</b>	
Final Exam (30%)	

### ***Resources***

Nelson Biology 11 Textbook (replacement cost is \$165)

### ***Plagiarism***

Students are expected to think independently and work honestly. All students must avoid presenting the work or ideas of others as their own. It is in the best interest of each student to build habits which contribute to genuine academic, personal, and social growth, and which attest to sound character. Plagiarism is an academic dishonesty which cannot be tolerated at IFS. The first offence will result in a mark of zero and all previous work may be put to scrutiny. Subsequent offence may result in removal from school. (IFS Student Planner, page 31)

### ***Contact***

Students can contact me through email or the contact section located on the course webpage.  
fazeel.siddiqui@myifs.ca



# Student Declaration and Agreement

Student Name: \_\_\_\_\_

Course: \_\_\_\_\_

Teacher: \_\_\_\_\_

I have read this course outline and understand the procedures, policies, resources, and consequences that exist in relation to this course. If I have questions, concerns, or suggestions about any aspect of this course, I will contact the teacher at the earliest possible time so that I may meet with the greatest amount of success possible.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Parent / Guardian Signature

\_\_\_\_\_  
Date