OUR LADY OF LOURDES CATHOLIC HIGH SCHOOL

Biology, Grade 11 University Preparation
Course Overview
Semester I
2010-2011

Course Code: SBI 3U1
Credit Value: 1
Teacher: Mrs. C. Hudecki

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.
Prerequisite: Grade 10 Academic Science (SNC 2D)

How This Course Supports the Ontario Catholic School Graduate Expectations

This course seeks to further the achievement of Catholic Graduate expectations through investigating Scripture, Catholic Church teaching, and moral and ethical reflection into the curriculum. Biology becomes authentic when it acknowledges both the material and spiritual dimensions of life. Students use Scripture to reflect on the mystery, wonder and awe, and sacredness of life. They use Church teaching to inform themselves in order to think critically and reflectively about the moral and ethical issues raised in the course. In addition to the informative role that the curriculum plays, there is the formative role of the community within the classroom. When Gospel values are actively witnessed with the classroom community they reveal the deeper spiritual Truth of our creation and are seen as something "reasonable and worthy of being lived."

Unit Titles

Unit 1	Diversity of Living Things
Unit 2	Evolution
Unit 3	Genetic Processes
Unit 4	Animals: Structure and Function
Unit 5	Plants: Anatomy, Growth, and Function

Big Ideas

Diversity of Living Things

- All living things can be classified according to their anatomical and physiological characteristics.
- Human activities affect the diversity of living things in ecosystems.

Evolution

- Evolution is the process of biological change over time based on the relationships between species and their environments.
- The theory of evolution is a scientific explanation based on a large accumulation of evidence.
- Technology that enables humans to manipulate the development of species has economic and environmental implications.

Genetic Processes

- Genetic and genomic research can have social and environmental implications.
- Variability and diversity of living organisms result from the distribution of genetic materials during the process of meiosis.

Animals: Structure and Function

- Groups of organs with specific structures and functions work together as systems, which interact with other systems in the body.
- The development and uses of technology to maintain human health are based, in part, on the changing needs of society.

Plants: Anatomy, Growth, and Function

- 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.

Assessment and Evaluation of Student Learning

Student achievement of the learning expectations will be evaluated according to the following breakdowns:

Term Work (70% of final mark) composed of:	**Culminating Activity (30% of final mark)**
Knowledge & Understanding 30% Thinking & Inquiry 30% Communications 20% Applications/Making Connections 20%	This 30% is made up of: Compulsory Final Exam and/or Culminating Unit Task

Course Resources

Nelson Biology 11, Ritter, Adam-Carr, Fraser. Nelson Thomson Learning, 2002

Parent/Guardian/Student Signature

My signature below indicates that I have read and understood the course overview.

Date:

Student Signature: _____

Parent Signature: _____