



Grade 12 University Biology



Course Outline

Course Code: SBI4U1
Prerequisite: SBI3U1

Textbook: Biology 12
Instructor:

COURSE DESCRIPTION		
<p>This course provides students with the opportunity for in-depth study of the concepts and processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biochemistry, metabolic processes, molecular genetics, homeostasis, and population dynamics. Emphasis will be placed on the achievement of detailed knowledge and the refinement of skills needed for further study in various branches of the life sciences and related fields.</p>		
UNITS OF STUDY		
Unit Topic	Key Topics	Sample Issues
Biochemistry	Structure and function of biological molecules in cellular processes	Applications of biological compounds, use as diagnostic tools, etc
Metabolic Processes	Cellular respiration, photosynthesis, and energy changes in metabolic processes	Metabolic processes and diet choices and their implications
Molecular Genetics	Molecular genetics and their applications in genetic research and biotechnology	Agricultural biotechnology, GMOs
Homeostasis	Feedback mechanisms involved in regulation of human body physiology	Drugs and their effects on the body
Population Dynamics	Relationships between population growth and their impact on local and global ecosystems	Ecological footprints
COURSE EVALUATION		
Evaluations will reflect the following assessment breakdown		
Knowledge/Understanding Emphasizes the ability to recall factual information, recognize fundamental concepts and the foundational skills of the subject/discipline		25 %
Thinking / Inquiry Emphasizes the use of critical and creative thinking skills and inquiry, research and problem-solving skills and/or processes. It is an opportunity to demonstrate learning through the use of initiating and planning skills and strategies.		35 %
Communication Emphasizes clear, precise and effective expression and organization of ideas and information through the use of oral, written and visual language to communicate the student's understanding of information and ideas		15 %
Application Emphasizes the use of knowledge and skills to make connections within and between various contexts. Students will propose courses of action to deal with problems related to science, technology, society and the environment.		25 %
FINAL EVALUATION		
The final mark will be determined according to this breakdown		
TERM WORK 70 %	Learning will be assessed through work completed during the term, including assignments, quizzes, unit tests, labs and practical work.	
EXAM 30 %	Learning will be assessed at the end of the course with an exam lasting 3 hours.	

Our Lady of Mount Carmel S. S.
Science Department
Expectations, Assessment & Evaluation Policies

Behaviour and Performance Expectations

- Students should respect their peers and teachers as well as the classroom environment.
- Students should be punctual, prepared for class (with textbook, notebook, pens, pencils, etc) and in full uniform.
- There is no eating or drinking in the science laboratory.
- Students are expected to work cooperatively on activities, assignments and lab reports. If individual reports are required, “carbon copies” are not accepted. All reports must be referenced in APA format. Plagiarism will not be tolerated and will result in a mark of zero.

Lab Behaviour Expectations

- Students must be well versed in science safety
- Students must be prepared to do the laboratory activity (i.e. students have read the lab and completed any pre-lab assignment)
- Working in the lab is a privilege. This privilege can be lost and will result in lost marks. Students should follow instructions carefully, follow all safety rules and keep their work area clean.

Attendance

Regular attendance, keeping up to date with regular classroom and homework assignments is an essential component of success in this course. ***Students are responsible for the work they miss while absent including homework, assignments and laboratory results.***

Enter the names and phone numbers of two classmates to call when you are absent.

Friend: _____ Phone Number _____

Friend: _____ Phone Number _____

Test, Quiz and Assignment Policy

Students must adhere to the Our Lady of Mount Carmel “Achieve your Best” policy for test/quiz dates and assignment deadlines.

Progress Reports

A progress report will be issued to each student periodically during the semester. Parents/guardians are asked to sign the report and are invited to comment. If you have any questions or concerns please contact the classroom teacher at any time during the semester at extension 68019.

I _____ (student’s name) have read the Science Department Policies on Expectations and Assessment and Evaluation and have shared the information with my parents/guardians.

Student’s signature

Parent/Guardian’s Signature