



Immaculate Conception High School

Introduction to Biology Course Outline for the Academic Year 2024/2025

Department Name	Science
Grade Level	9
Title of Course	Introduction to Biology
Duration	September 2024 – June 2025
Description of the Course	<p>This course is designed so that students can develop science process skills and science practices. Students will use the process skills and practices of sciences to develop an understanding of the scientific concepts. The scientific attitudes and practices will enable students to work like scientists and have a well-rounded and enriching experience.</p>
Course Prerequisites	<p>Students should have been exposed to at least two (2) years of science at the secondary level. This would have introduced basic biological concepts and principles.</p>
Course Objectives	<p>This course aims to: -</p> <ul style="list-style-type: none">● Apply scientific knowledge and processes to the solution of real-world problems.● Understand the importance of the life processes in plants and animals, their interdependence, their interaction with the environment, and how lifestyles determine health and well-being.● Appreciate the influence and limitations of science and consideration for ethical issues.● Demonstrate a positive attitude towards the use of scientific language.
Student Learning Outcomes	<p>Students should be able to: -</p> <ul style="list-style-type: none">● Apply scientific knowledge and processes to the solution of real-world problems.● Use mathematics as a tool for problem-solving, and as a means of expressing and/or modelling scientific concepts.

	<ul style="list-style-type: none"> ● Demonstrate positive interpersonal skills in order to foster good working relationships. ● Apply the principles of science in the solution of everyday problems. ● Demonstrate curiosity, objectivity and perseverance in their approach to scientific activities.
Topical Outline of the Course Content	<p>The following topics are what are intended to be covered during the academic year (1 Term): -</p> <ul style="list-style-type: none"> ● Eye Structure and Function ● Transport in plants ● Transport in Animals ● Nervous System ● Endocrine System ● Senses and Sense Organs ● The Human Ear
Guidelines/Suggestions for Teaching Methods and Student Learning	<ul style="list-style-type: none"> ● <u>Lectures</u>: Provide contextual background and detailed analysis of each topic. ● <u>Group Discussions</u>: Facilitate discussions on primary source documents and historical interpretations. ● <u>Field Trips</u>: Visits to local industries related to a topic. ● <u>Differentiated Instruction</u>: Tailoring instruction to meet the needs, strengths, and interests of each student. ● <u>Peer Teaching</u>: Students teach their peers, which can reinforce their own learning and enhance their understanding. ● <u>Socratic Method</u>: Teaching by asking thought-provoking questions to challenge assumptions and encourage critical thinking.
Guidelines/Suggestions for Methods of Student Evaluations	<ul style="list-style-type: none"> ● <u>Quizzes and Tests</u>: Regular assessments to check understanding of key concepts. ● <u>Classwork</u>: Assignments completed during class that help monitor ongoing student progress and understanding. ● <u>Class Participation</u>: Assessment based on engagement in discussions and activities. ● <u>Presentations</u>: Students present their research findings to the class.

	<ul style="list-style-type: none"> ● <u>Models</u>: Students will be asked to use various materials to create models to enhance understanding. ● <u>Group Projects</u>: Team assignments that assess collaborative and interpersonal skills along with individual contributions. ● <u>Reflections</u>: Written insights by students on their learning experiences, often discussing what they learned and areas for improvement. ● <u>Online Quizzes and Exams</u>: Digital tests that make use of technology to assess students' understanding in a more flexible or remote setting. ● <u>Final Exam</u>: A comprehensive exam covering all course material.
Suggested Readings, Texts, Objects of Study	<ul style="list-style-type: none"> ● Investigating Science for Jamaica: Grade 9 by June Mitchelmore
Additional Readings	<ul style="list-style-type: none"> ● Biology for CSEC – A Caribbean Examinations Council Study Guide by Nelson Thorne
Bibliography of Supportive Texts and Other Materials	<ul style="list-style-type: none"> ● <i>Caribbean Examinations Council: CSEC Biology Syllabus by Macmillan Publishers Limited</i> ● <i>Course Outline Template by Natalie Bailey</i> ● <i>Immaculate Conception High School Book List: Science Department</i>

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