



Highfields State
Secondary College

Semester 2 Course Overview

Faculty: Science
Subject: Biology
Year level: 11

Course Outline

Biology provides opportunities for students to engage with living systems. Students will learn valuable skills required for the scientific investigation of questions. In addition, they will become citizens who are better informed about the world around them and who have the critical skills to evaluate and make evidence-based decisions about current scientific issues.

It is characterised by a view of life as a unique phenomenon with fundamental unity. Living processes and systems have many interacting factors that make quantification and prediction difficult. An understanding of these processes and systems requires integration of many branches of knowledge. The syllabus objectives include:

- describe and explain scientific concepts, theories, models and systems and their limitations
- apply understanding of scientific concepts, theories, models and systems within their limitations
- analyse evidence
- interpret evidence
- investigate phenomena
- evaluate processes, claims and conclusions
- communicate understandings, findings, arguments and conclusions.

Semester 2	
Unit 2: <i>Maintaining the internal environment</i>	Unit 3: <i>Biodiversity and the interconnectedness of life</i>
Topic 2: <i>Infectious disease</i>	Topic 1: <i>Describing Biodiversity</i>
<p>In Unit 2, students explore the ways biology is used to describe and explain the responses of homeostatic mechanisms to stimuli and the human immune system. Topic 2 explores the immune system and the relationships between global, community and individual immunity. Students will examine geographical and population data to analyse strategies that may have personal and communal consequences.</p> <p>Participation in a range of experiments and investigations will allow students to progressively develop their suite of science inquiry skills while gaining an enhanced appreciation of controlling the internal environment.</p> <p>Assessment: Formative Exam This assessment is a two part exam that covers all of U1 and U2 work.</p>	<p>In Unit 3, students explore the biodiversity within ecosystems. Topic 1 provides opportunities for the students to explore the biotic and abiotic components that exist within ecosystems that impact species richness and the behavioural, physiological and structural features of organism existent within them.</p> <p>Furthermore students will gain appreciation for the diversity of life on Earth through investigation of classification systems and evolutionary relatedness.</p> <p>There will be opportunity for students to develop field work skills within learning activities, field work and assessment.</p> <p>Formative Assessment: <i>Monitoring Exam</i> This assessment will monitor student understanding before formal internal assessment in Term 1 next year.</p>