



Science 201 2015

Overview

Course Title and Level of Study

Science Level 2

Course Description

Year 12 Science is designed for students who enjoy a broad selection of Sciences and who have completed mainly Internal standards at Year 11. Students will Complete Internal Standards at Level 2 NCEA from all three Science disciplines. It is ideally suited to students who have a good background in Science but are not wishing to specialize. It may lead to further employment in laboratory work, health and nursing.

Assessment Guidelines

Students will complete 6 achievement standards, each worth between 4-5 credits. All standards are internally assessed and can range from formal presentations to long term practical reports.

The majority of assessments will be completed in formal classroom conditions

Authenticity

All work submitted must be your own and follow procedures laid out in the Student NCEA Handbook. You must sign an authenticity declaration for your work to be accredited.

Pre-requisites for this course and for your next level of study

You should have 14 credits from Level 1 Science to study Science at Level 2. Other entry to the course is by negotiation with the Head of Faculty.

You will need 14 credits from Science and Head of Faculty approval to progress to a Level 3 course in specialist Sciences.

Course Materials

- Ring Binder, Subject dividers, A4 Refill, Field Trip costs where appropriate

Tracking Progress:

Standard Number: 91168

Standard Title: Physics Investigation

Grade:

Credits Achieved: 4

Standard Number: 91169

Standard Title: Physics within a Context

Grade:

Credits Achieved: 4

Standard Number: 91189

Standard Title: Earth and Space

Grade:

Credits Achieved: 4

Standard Number: 91160

Standard Title: Microscopes

Grade:

Credits Achieved: 4

Standard Number: 91153

Standard Title: Biology Investigation

Grade:

Credits Achieved: 3

Standard Number: 91163

Standard Title: Chemistry within technology

Grade:

Credits Achieved: 3

Achievement Objectives

In a range of meaningful contexts, students will be engaged in thinking, communicating, and participating in a wide variety of scientific contexts. They will investigate and reports to show they can:

Nature of Science

- NOS 7-2 Develop and carry out investigations that extend their science knowledge, including developing their understanding of the relationship between investigations and scientific theories and models.
- NOS 7-3 Use accepted science knowledge, vocabulary, symbols, and conventions when evaluating accounts of the natural world and consider the wider implications of the methods of communication and/or representation employed.
- NOS 7-4 Use relevant information to develop a coherent understanding of socio-scientific issues that concern them, to identify possible responses at both personal and societal levels.

Biology (Living World)

- LW 7-1 Explore the diverse ways in which animals and plants carry out the life processes

Chemistry (material world)

- MW 7-3 Apply knowledge of chemistry to explain aspects of the natural world and how chemistry is used in society to meet needs, resolve issues, and develop new technologies.

Physics (physical world)

- PW 7-1 Investigate physical phenomena in the areas of mechanics, electricity, electromagnetism, light and waves, and atomic and nuclear physics. Produce qualitative and quantitative explanations for a variety of unfamiliar situations; Analyse data to deduce complex trends and relationships in physical phenomena.
- PW 7-2 Using physics Use physics ideas to explain a technological or biological application of physics.

Earth and Ocean Science (planet earth and beyond)

- PEB 7-1 Develop an understanding of the causes of natural hazards and their interactions with human activity on Earth.

Standard Course Outline:

NQF Number	Version	Internal / External	Full Title	Credits	Estimated Study Dates	Estimated Assessment Date or Project Deadline	Lit/Num
2.8 91160		Internal	Investigate biological material at the microscopic level	3	T1 wk 1-5	T1 wk 5	
2.2 91169		Internal	Demonstrate understanding of physics relevant to a selected context	4	T1 wk 6-9	T1 wk 9	Lit
2.3 91189		Internal	Technological adaptations to an extreme environment	4	T2 wk 1-5	T2 wk 5	Lit
2.1 91168		Internal	Take measurements of physical quantities and analyze data graphically to determine a relationship	4	T2 wk 6-11	T2 wk 11	Lit/Num
2.1 91153		Internal	Carry out a practical investigation in a biology context, with supervision	4	T3 wk 1-6	T3 wk 6	Num
2.3 91163		Internal	Demonstrate understanding of the chemistry used in the development of a current technology	3	T3-4 wk 8-2	T4 wk 2	Lit

Revision Programme:

Students will be expected to complete regular homework and revision, all teachers in the department can provide further assistance if required.