

Biology 201 2015

Teacher(s): Mr. Callow Head of Faculty: Mr. Callow

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Room: 24

Overview

Course Title and Level of Study

Biology Level 2

Course Description

This course focuses on students investigating, and developing their understanding of the living world. It covers aspects of genetics and evolution, ecology, diversity in plants and animals, cells, the impact of human activities within ecosystems and techniques used in applied biology. Students will be provided with opportunities to develop their observation and data collection skills through field work and their scientific investigation skills.

Assessment Guidelines

Students will complete 6 achievement standards, each worth between 3-4 credits. There is a total of 23 credits available to students. These range from long term projects to formal examinations. Internally 15 credits can be gained with a further 8 being available externally. The external standards will have practice examination during school assessment week.

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 with proven success in External Examinations. Other entry to the course is by negotiation with the Head of Faculty.

You will need 14 credits from Biology to progress to Level 3

Course Materials

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

Tracking Progress:

Standard Number: 991158

Standard Title: Ecological Communities

Grade:

Credits Achieved: 4

Standard Number: 91160

Standard Title: Microscopes

Grade:

Credits Achieved:3

Standard Number: 91156 (EXT)

Standard Title: Life Processes Cells

Grade:

Credits Achieved: 4

Standard Number: 91153

Standard Title: Biology Investigation

Grade:

Credits Achieved: 4

Standard Number: 91157 (EXT)

Standard Title: Genetic Variation and

Change Grade:

Credits Achieved: 4

Standard Number: 91154

Standard Title: Biological Validity

Grade:

Credits Achieved: 4

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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)

• <u>LW 7-1</u> Explore the diverse ways in which animals and plants carry out the life processes

Standard Course Outline:

NQF Number	Version	Internal / External	Full Title	Credits	Estimated Study Dates	Estimated Assessment Date or Project Deadline	Lit/Num
2.4 91156	2	Ext	Demonstrate understanding of Life Processes at the cellular Level	4	T1 wk 1-8	T1 and T4	Lit
2.1 91153	2	Int	Carry out a practical investigation in a biology context with supervision	4	T1-2 wk 8-2	T2 wk 2	Lit
2.8 91160	2	Int	Investigate Biological material at the microscopic level	3	T2 wk 3-5	T2 week 5	Lit/Num
2.2 91154	2	Int	Analyse the biological validity of information presented to the public	4	T2 wk 6-9	T3 wk 1	Lit
2.6 91158	2	Int	Investigate a pattern in an ecological community with supervision	4	T3 wk 1-4	T3 wk5	Lit
2.5 91157	2	Ext	Demonstrate understanding of genetic variation and change	4	T3-4 wk 5-1	T4 wk 1	Lit

Revision Programme:

Students will be expected to complete regular homework and revision, all teachers in the department can provide further assistance if required. Regular stdy times and revision is available and timetabled in the lead up to external examinations.

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