OPIHI COLLEGE

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Room: 24

Biology 301
2015

Overview

Course Title and Level of Study

Biology Level 3

Course Description

This course focuses on students investigating, and developing their understanding of the living world. Topics include the diversity, structure, function and interrelationships of living organisms and their interactions with the abiotic environment; genetics and evolution; interactions between humans and their environment and modern biotechnology applications

Assessment Guidelines

Students will complete 5 achievement standards, each worth between 3-4 credits. There are a total of 19 credits available to students. These range from long term projects to formal examinations. Internally 10 credits can be gained with a further 11 being available externally. The external standards will have practice examinations 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 2 Biology or another Science discipline with proven success in external examinations. Other entry to the course is by negotiation with the Head of Faculty.

Course Materials

- Ring Binder,
- Subject dividers
- A4 Refill
- Graph paper
- Field Trip costs to Portobello
- Student workbook

Tracking Progress:

Standard Number: 91601
Standard Title: Practical investigation
Grade:
Credits Achieved: 4

Standard Number: 91604
Standard Title: Homeostasis
Grade:
Credits Achieved:3

Standard Number: 91603(EXT)
Standard Title: Plant and animal responses
Grade:
Credits Achieved: 5

Standard Number: 91602
Standard Title: Socio Scientific issue
Grade:
Credits Achieved: 3

Standard Number: 91606 (EXT)
Standard Title: Human Evolution
Grade:
Credits Achieved: 4

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

• Understand that scientists have an obligation to connect their new ideas to current and historical scientifi c knowledge and to present their findings for peer review and debate. Investigating in science

• Develop and carry out investigations that extend their science knowledge, including developing their understanding of the relationship between investigations and scientific theories and models. Communicating in science

• 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. Participating and contributing • 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)

• Understand the relationship between organisms and their environment.
• Explore the evolutionary processes that have resulted in the diversity of life on Earth and appreciate the place and impact of humans within these processes.
• Understand how humans manipulate the transfer of genetic information from one generation to the next and make informed judgments about the social, ethical, and biological implications relating to this manipulation.

Standard Course Outline:

NQF Number	Version	Internal / External	Full Title	Credits	Estimated Study Dates	Estimated Assessment Date or Project Deadline	Lit/Num
91603	1	Ext	Demonstrate understanding of the responses of plants and animals to their external environment	5	T1-2	T2 wk 4-5	Lit
91601	1	Int	Carry out a practical investigation in a biological context, with guidance	4	T1 and 2	T2 wk 1	Lit/Num
91604	1	Int	Demonstrate understanding of how an animal maintains a stable internal environment	3	T2 wk 6-10	T3 wk1	Lit
91602	1	Int	Integrate Biological knowledge to develop an informed response to a socio-scientific issue	3	T3 wk 1-4	T3 wk 4	Lit
91606	1	Ext	Demonstrate understanding of trends in human evolution	4	T3-4 wk 5-2	T4	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 study times and revision is available and timetabled in the lead up to external examinations.