COURSE OUTLINE

Course Name: Introductory Biology - Part 2

Course Number: BIOL 1071 **Number of Credits:** 3.0 **Effective Date:** January 2018

Course Description:

This class-based course is designed to study plants and the diversity of animals, including humans, and examine their structures, functions, evolution and environments, including our interactions with selected species. Field trips are an important part of this course.

Both Biology 1061 and Biology 1071 are required for covering the biology topics contained in high school courses up to and including the Grade 11 level. Biology 1071 will include a minimum of four labs and two field trips. Field trips allow students to explore local ecology in order to meet intended learning outcomes such as - Conduct field procedures safely and ethically - Analyze and interpret data collected - Native species identification. While not required, it is strongly recommended that students have English 11.

Biology 1061 and Biology 1071 can be taken at the same time or in any order.

School or Centre:

School of Arts and Sciences

Year of Study:

1st Year Post-secondary

Course History:

New Course

Name of Replacing Course (if applicable):

Course Pre-requisites (if applicable):

- English 10 or equivalent
- Math 10 (VCC MATH 0750/0751, Foundations of Math & Precalculus 10, or equivalent)

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition) ☒ No ☐ Yes (details below):

Instructional Strategies:

Class-based course uses a lecture-based model, but significant class time will be spent throughout the course on hands-on laboratory activities and field-work to complement the lectures.

Course Learning Outcomes:

Biology learners will:
- Apply findings from all labs and field trips to biological classification and characteristics of life
- Experience local ecology through field trips and identify local flora and fauna using field guides
- Demonstrate familiarity with field equipment and its use during intertidal field trip
- Continue to develop microscope and slide preparation techniques
- Observe live hydra, planaria, algae, and examples of intertidal species
- Demonstrate dissection skills on examples from animal and plant phyla (e.g. earthworm, clam, sea star,
- fish, rat, ferns, and flowers)

By participating in the activities outlined above and studying the background theory inherent in the core topics, students will have the opportunity to:
- Demonstrate awareness of the diversity and interconnectedness of organisms
- Use scientific method to evaluate, interpret, and analyze information/ write a formal lab report
- Communicate about life sciences in their own words and cite references appropriately
- Work independently and also as part of a team, where appropriate
- Demonstrate an awareness of ethical issues relevant to biological sciences
- Conduct lab and field procedures safely and ethically / Collect and record data effectively

Program Learning Outcomes:

N/A

Evaluation/Grading System

Grading System	Specify if 'Other':	Specify Passing Grade:
Letter Grades		D

Components and Weighting of the Assessment/Evaluation Plan:

Type	Percentage	Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):
		Class-based
Field Experience	15	formal lab report & classification assignment
Quizzes/Tests	20	
Assignments	65	3 tests plus a number of quizzes
Total	**100**	

Learning Environment/Type

Instruction Type	Hours Per Instruction Type	Comments
		College Foundations
L - Classroom	60	classroom, lab and field work
-		
Total	**60**	

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.

Course Topics:

1. Classification Systems and Major Taxonomic Groups
2. Levels of Biological Organization
3. Features of Animal Evolution, Variety of Reproductive Strategies
   Marine & Intertidal Zone Ecology (Aquarium Field Trip, Low-Tide Field Trip, & Lab Examination of Living Organisms)
4. Identify structures, distinguishing characteristics & life processes for the following:
   • Porifera, Cnidaria,
   • Nematoda, Platyhelminthes, Annelida (worm labs - examine internal/external structures in various phyla)
   • Molluscs, Arthropods, Echinoderms (labs include behavioural & structural examination)
   • Chordates, Including Origin of the Vertebrates, Fish, Amphibians, Reptiles, Birds (field trip – observe birds in natural setting), & Mammals (lab – comparison of vertebrate skeletons), Origins of Humans
6. Evolution of Plants. Algae (lab - microscopic and other examination of algae), Bryophytes (lab – dissection and examination of moss), Ferns (lab – dissection and examination of ferns), Gymnosperms, and Angiosperms (cone, fruit and flower lab)
7. The Biosphere, Ecosystems, Communities, Populations

VCC Education and Education Support Policies

There are a number of **Education** and **Education Support** policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:

http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

Approved by Curriculum Committee:	June 20, 2017	**Approved by Education Council**:	September 12, 2017