



v c c . c a

# BIOL 1061: Introductory Biology - Part 1

---

## EFFECTIVE DATE

January 2018

## DEPARTMENT

UT Sciences

## DESCRIPTION

This course provides an introduction to biology from an ecological perspective. Students study evolution; the origin of life; cell biology; viruses, bacteria, protists and fungi; local land and aquatic ecosystems, including native species identification. 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 1061 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. Biology 1061 and Biology 1071 can be taken at the same time or in any order.

## CREDITS

3.0

## YEAR OF STUDY

1st Year Post-secondary

## PREREQUISITES

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

## COREQUISITES

None

## COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

- Apply findings from all lab activities and field trips to broader concept of mechanisms of evolution
- Demonstrate use of basic field equipment in local forest, bog and/or pond habitats
- Experience local ecology through field trips and identify local flora using field guides
- Demonstrate compound light microscope and dissection microscope skills
- Culture, stain, observe, and identify bacteria

- Observe live cultures of a variety of Protists
- Identify structures of a variety of fungi in the Fungus Lab
- Demonstrate awareness of the diversity and interconnectedness of organisms
- Use scientific method to evaluate, interpret, and analyze information and experiences
- Communicate about life sciences in their own words and cite references appropriately
- Work independently and also as part of a team, where appropriate
- Evaluate media regarding issues in biological sciences
- Demonstrate an awareness of ethical issues relevant to life sciences
- Conduct lab and field procedures safely and ethically / Collect and record data effectively

## PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

## HOURS

Lecture: 60

## 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.

## GRADING SYSTEM

Letter Grade (A-F)

## PASSING GRADE

D

## EVALUATION PLAN

Type	Percentage	Assessment activity
Field Experience	20	Essay/report and plant identification
Quizzes/Tests	65	3 tests and a number of quizzes
Assignments	15	

## COURSE TOPICS

1. Classification Systems and Major Taxonomic Groups
2. Evolution (Evidence and Mechanisms)

3. Origins of Life
4. Cell Biology, including:
  - Cell Theory,
  - Major Structures/Functions In Prokaryotic And Eukaryotic Cells
  - Levels of Biological Organization
  - Introduction to Photosynthesis and Cellular Respiration
  - Cell Division
5. Viruses & Bacteria (\*bacteria and microscopy laboratory)
6. Protists (\*Laboratory - microscopic observation of living and prepared protists)
7. Fungus
8. Algae, Bryophytes, Ferns, Gymnosperms, and Angiosperms
9. General Ecology (Energy flow, Nutrient cycling, Biosphere, Biomes, Climate, Succession)
10. Ecosystems and Local Ecology (Forests, Bogs, Freshwater Ecosystems) (\*at least two Field trips to forest, bog and or pond ecosystems including field note taking, experimental methodology)

## LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:  
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

---

**Broadway campus**  
1155 East Broadway  
Vancouver, B.C. Canada  
V5T 4V5

**Downtown campus**  
250 West Pender Street  
Vancouver, B.C. Canada  
V6B 1S9

**Annacis Island campus**  
1608 Cliveden Avenue  
Delta, B.C. Canada  
V3M 6P1

604.871.7000  
**VCC.ca**

Generated at: 10:11 pm on Apr. 19, 2021