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BIOL 0861: Biology 11 Part 1

EFFECTIVE DATE

January 2017

DEPARTMENT

CF - Science

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 provide students with opportunities to explore local ecology and analyze and interpret data collected. Biology 0861 and Biology 0871 can be taken at the same time or in any order. Both Biology 0861 and Biology 0871 are required for completion of ABE Advanced level Biology.

CREDITS

4.0

YEAR OF STUDY

ABE Advanced Level(Grade11)

PREREQUISITES

MATH 0751, Foundations of Math & Precalculus 10 or equivalent; English 10 or equivalent.

COREQUISITES

None

COURSE LEARNING OUTCOMES

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

- Students will meet the learning outcomes for ABE Advanced Level Biology as stated in the most recent ABE Articulation Handbook.

PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

HOURS

Lecture: 96

Lab: 96

Other: 96

INSTRUCTIONAL STRATEGIES

Option 1: Self-paced - one-to-one individualized instruction, field trips and labs
Option 2: Class-based - lecture and small group workshops, field trips and labs

GRADING SYSTEM

Letter Grade (A-F)

PASSING GRADE

D

EVALUATION PLAN

| Type | Percentage | Assessment activity |
|------------------|------------|---|
| Field Experience | 20 | Class based option: Essay/report and plant identification |
| Quizzes/Tests | 65 | Class based option: 3 tests and a number of quizzes |
| Assignments | 15 | Class based option |
| Assignments | | Self-paced option: Lab 25%, 3 tests at 19% each, assignments 9% and field experience 9% |

COURSE TOPICS

- Classification Systems and Major Taxonomic Groups
 - Evolution (Evidence and Mechanisms)
 - Origins of Life
 - 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
 - Viruses & Bacteria (*bacteria and microscopy laboratory)

Protists (*Laboratory - microscopic observation of living and prepared protists)

Fungus

Algae, Bryophytes, Ferns, Gymnosperms, and Angiosperms (self-paced only)

General Ecology (Energy flow, Nutrient cycling, Biosphere, Biomes, Climate, Succession)

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, and reporting)

Ecological Issues (the last three Ecology topics are covered in class-based only)

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

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Vancouver, B.C. Canada
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Downtown campus

250 West Pender Street
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