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BIOL 1100: Biology 1

EFFECTIVE DATE

DEPARTMENT

UT Sciences
DESCRIPTION

This course is the first half of the majors course in general biology, from organisms through ecosystems. Lectures examine the history and diversity of life through explorations of ecology, evolution, structure and function relationships, development and genetics, with many examples from British Columbia. An integrated lab/lecture format allows efficient incorporation of concepts of anatomy, physiology, and development with investigative skills. Laboratory and field activities also examine local ecosystems and biota, and develop scientific practice. Prerequisite: Biology 11, Biology 12, Chemistry 11, Precalculus 11, all with at least a C+.

CREDITS

4.0

YEAR OF STUDY

1st Year Post-secondary

PREREQUISITES

None

COREQUISITES

None

COURSE LEARNING OUTCOMES

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

- Explain the origin of life on earth, and what sustains it.
- Discuss evolutionary processes to explain biological adaptations and the history and diversity of life.
- Apply knowledge of genetics and DNA and use them to help explain underlying mechanisms of evolution.
- Describe structure/function relationships in microbes, plants, and animals.
- Discuss life histories, including development, in plants and animals.
- Describe and analyze global and local ecosystems.
- Use biological data collecting skills, including finding and interpreting scientific literature, microscopy, field and laboratory observation and experimentation.
- Carry out a scientific investigation; design and perform experiments as part of a team; collect, statistically

analyze and interpret data, and report findings.

- Apply scientific concepts and critical evaluation to practical experience as well as controversial societal issues.
- Effectively use terminology that defines concepts in structure and function, development, genetics and ecosystem and evolutionary biology.

PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

HOURS

Lecture: 60

Lab: 60

INSTRUCTIONAL STRATEGIES

Lectures, laboratory/field activities and seminars complement one another. Field trips examine local biological communities. Laboratory activities center upon a marine biology investigation chosen and carried out by a student team.

GRADING SYSTEM

Letter Grade (A-F)

PASSING GRADE

D

EVALUATION PLAN

Type	Percentage	Assessment activity
Midterm Exam	20	
Final Exam	20	
Quizzes/Tests	20	
Field Experience	10	
Project	30	proposal, literature report, experiment

COURSE TOPICS

- Origin, History, and Diversity of Life
- Structure and Function of Microbes, Plants, and Animals
- Life Histories of Organisms (including development)
- Ecosystems, Biological Communities, and Populations
- Genetics
- Mechanisms of Evolution
- Biogeography and Speciation

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>.

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