

CAMOSUN COLLEGE School of Arts & Science Department

BIOL 102 Non-Majors Biology 2 Fall 2002 – Section 003

COURSE OUTLINE

The Approved Course Description is available on the web @

http://www.camosun.bc.ca/divisions/registrar/calendar/courses/bio.htm

• Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for your records.

PREREQUISITES

English 12 or assessment. Math 10 recommended. Students going on in Sciences will require further mathematics. Note: Students who have BIOL 080 without BIOL 060 or Biology 11 should take BIOL 102 to complete their 2 semesters of preparatory Biology for Majors courses.

1. Instructor Information

- (a) Instructor: Ted Davis, M.Sc., PH.D.
- (b) Office hours: Monday 1:30-2:20 PM; Wednesday 1:00-2:00 PM; Thursday 12:30-1:30 PM
- (c) Location: F246
- (d) Phone: 370-3433
- (e) E-mail: davist@camosun.bc.ca

2. Intended Learning Outcomes

- 1) be able to identify and classify living organisms to their major taxonomic groupings, and to list their defining characteristics
- 2) be able to describe the major lines of evidence for evolution
- 3) be able to explain the mechanics of natural selection and speciation
- 4) be able to discuss the nature of scientific knowledge; its limits and strengths, and how it is produced
- 5) be able to explain basic concepts in population and community ecology
- 6) be able to recognize and explain the major threats to biodiversity and ecosystem processes, and ways in which these threats might be mitigated

3. Required Materials

(a) Textbook: Johnson, G.B. 2003. The Living World. 3rd edition. McGraw Hill. [or the 2nd edition]

(b) BIOL 102 Laboratory Manual

4. Course Content and Schedule

Lecture: Thursday, 6:30-9:20 PM. Lab: Tuesday, 6:30-9:20 PM

You should plan on a minimum of 6 hours outside of scheduled class time for the completion of assignments and for general studying.

Week	Labs	Lecture
1	Intro; Lab Safety; Lab 1: Microscopes	Basic chemistry
		DNA, genes
		Biodiversity genes- ecosystems
2	Lab 2: Set up Bottle Ecology	Taxonomy, species concepts
	Lab 3: Set up Lab 3	Viruses and bacteria
		Protists
3	Lab 3 Soil diversity	Fungi
	Lab 2: Examine Bottle Ecology	Plants
		Plants
4	Lab 4 Protist and Fungi diversity	Review for Midterm
	Lab 2: Examine Bottle Ecology	Midterm I
5	Lab 5: Plant diversity	Invertebrates
	Lab 2: Examine Bottle Ecology	Invertebrates
		Chordates
6	Lab 6: Animal diversity	Vertebrates
	Lab 2: Examine Bottle Ecology	Evolution, evidence, natural selection, Darwin
		Evolution
7	Lab Exam I	Evolution
	Lab 2: Examine Bottle Ecology	Evolution
		Beyond Genesis
8	Lab 7: Evolution	Nature of scientific knowledge: epistemology,
	Lab 2: Examine Bottle Ecology	peer review, limits and strengths,
		misconceptions, etc.
		Pseudoscience, junk science
		Review for Midterm
9	Midterm II	Pop ecology
		Pop ecology
10	Lab 8: Graphs, means, distributions,	Interspecific interactions
	and statistics	Keystone species; tropic levels, food webs,
	Lab 2: Examine Bottle Ecology	biomagnification
		Nutrient flow in ecosystems
11	Lab 9: Mark recapture	Disturbance and succession
	Lab 2: Examine Bottle Ecology - final	Human population growth
12	Lab 10: Field Trip (Mt. Douglas)	Habitat loss and Fragmentation, edge effect
		Metapopulations, extinction vortex
		Habitat degradation; eutrophication
13	Lab 11: Predation	Overexploitation
		Exotic species and disease
		Atmosphere – global warming, ozone
14	Lab Exam II	Ecosystem services/ restoration ecology
		Conservation Biology
		Review for Final

Midterms I and II will be unit exams. The final lecture exam will be cumulative.

5. Basis of Student Assessment (Weighting)

a)	Lab Exam I	12.5%
b)	Midterm I	15%
c)	Midterm II	15%
d)	Lab Exam II	12.5%
e)	Assignments/quizzes	20%
f)	Final Exam	25%

ADDITIONAL INFORMATION

Be sure that you are familiar with the General Department Policies, which are stated in the lab manual. These policies cover absenteeism, late assignments (but see below), attendance, exam scheduling, plagiarism as well as other topics and will be discussed during the first lab meeting.

Each student is required to sign a Laboratory Safety Contract and give it to the instructor prior to commencing laboratory work in the course.

No programmable devices are allowed in exams.

ATTENDANCE

You are expected to attend all classes. Assignments are due at the **beginning** of the class period on the due date. Assignments not handed in at the beginning of class will be considered late, for which there is a 15% penalty/day. Also, if you miss a class or are late, you are very likely to miss a handout, assignment or other essential information. Classes begin on time, so don't be late! It is your responsibility to obtain this material from either the instructor or other students.

6. Grading System

The following percentage conversion to letter grade will be used:

A+ = 95 - 100%	B = 75 - 79%	D = 50 - 59%
A = 90 - 94%	B- = 70 - 74%	F = 0.0 - 49%
A- = 85 - 89%	C+ = 65 - 69%	
B+ = 80 - 84%	C = 60 - 64%	

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Registrar's Office or the College web site at http://www.camosun.bc.ca

ACADEMIC CONDUCT POLICY

There is an Academic Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.

www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html