CAMOSUN COLLEGE
School of Arts & Science
Department

BIOL 102 Non-Majors Biology 2
Fall 2002 – Section 002

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: Monday, Wednesday and Thursday, 2:30-3:20 PM. Lab: Tuesday, 2:30-5:20 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
2	Lab 2: Set up Bottle Ecology Lab 3: Set up Lab 3	• Biodiversity genes- ecosystems • Taxonomy, species concepts • Viruses and bacteria
3	Lab 3 Soil diversity Lab 2: Examine Bottle Ecology	• Protists • Fungi • Plants
4	Lab 4 Protist and Fungi diversity Lab 2: Examine Bottle Ecology	• Plants • Review for Midterm • Midterm I
5	Lab 5: Plant diversity Lab 2: Examine Bottle Ecology	• Invertebrates • Invertebrates • Chordates
6	Lab 6: Animal diversity Lab 2: Examine Bottle Ecology	• Vertebrates • Evolution, evidence, natural selection, Darwin • Evolution
7	Lab Exam I Lab 2: Examine Bottle Ecology	• Evolution • Evolution
8	Lab 7: Evolution Lab 2: Examine Bottle Ecology	• *Beyond Genesis* • Nature of scientific knowledge. • Pseudoscience, junk science.
9	Midterm II	• Review for Midterm • Pop ecology • Pop ecology
10	Lab 8: Graphs, means, distributions, and statistics Lab 2: Examine Bottle Ecology	• Interspecific interactions • Keystone species; tropic levels, food webs, biomagnification • Nutrient flow in ecosystems
11	Lab 9: Mark recapture Lab 2: Examine Bottle Ecology - final	• Disturbance and succession • 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