## CAMOSUN COLLEGE School of Arts & Science Biology Department

### BIOL 102 Non-Majors Biology 2 Winter 2005 – Sections 001 and 002

# **COURSE OUTLINE**

#### The Approved Course Description is available on the web @

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

 $\Omega$  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: TBA
- (c) Location: F340A
- (d) Phone: 370-3388
- (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. 3<sup>rd</sup> edition. McGraw Hill. [or the 2nd edition]

(b) BIOL 102 Laboratory Manual

#### 4. Course Content and Schedule

001: Lecture: Tu, W, & F, 9:30-10:20 AM. Lab: 001A, M, 9:30-12:20 PM; 001B, M, 2:30-5:20 PM. 002: Lecture: Tu, W, & Th, 4:30-5:20 PM. Lab: 002A, Th, 9:30-12:20 PM; 002B, Th, 1:00-3:50 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	Introduction	Basic chemistry I
	Lab 11: Microscopes	Basic chemistry II
		DNA, genes, and genetics
2	Lab 1: Pop <sup>n</sup> growth – set up	Taxonomy, species concepts
	Lab 2: Soil – week 1	Viruses and Bacteria
	Lab 4: Set up Bottle Ecology	Protists I
3	Lab 1: Pop <sup>n</sup> growth – data	Protists II
	Lab 2: Soil – week 2	• Fungi
	Lab 5: Lichen Chromatography	Plants I
	Lab 7 Protists and Fungi	
	Lab 4: Examine Bottle Ecology	
4	Lab 1: Pop <sup>n</sup> growth – data	Plants II
	Lab 4: Examine Bottle Ecology	Origin of Life
	Lab 8: Plants	Midterm I
5	Lab 1: Pop <sup>n</sup> growth – data	Invertebrates I
	Lab 4: Examine Bottle Ecology	Invertebrates II
	No Labs this week	Reading Break
6	Lab 1: Pop <sup>n</sup> growth – data	Invertebrates III
	Lab 9: Animals I	Vertebrates I
	Lab 4: Examine Bottle Ecology	Vertebrates II
7	Lab 1: Pop <sup>n</sup> growth – data	Vertebrates III
	Lab 9: Animals II	Science I
	Lab 4: Examine Bottle Ecology	Science II
0	Review for Lab Exam	
8	Lab Exam I	Darwin's revolution
	Lab 1: Pop <sup>n</sup> growth – data Lab 4: Examine Bottle Ecology	Beyond Genesis
		Evolution I
9	Lab 1: Pop <sup>n</sup> growth – data	Evolution II
	Lab 4: Examine Bottle Ecology	Microevolution
	Lab 6: Adaptation Lab 13: Evolution	Macroevolution
10	Lab 1: Pop <sup>n</sup> growth – terminate	Midterm II
10	Lab 4: Terminate Bottle Ecology	Population Ecology I
	Lab 12: Graphs, and statistics	<ul> <li>Population Ecology I</li> <li>Population Ecology II</li> </ul>
11	Lab 14: Mark recapture	Interspecific interactions
	Lab 15: Predation	Community Ecology I
		Community Ecology I     Community Ecology II
12	No Labs this week	Biodiversity and Ecosystem Services
14	NO LADO UNO WEEK	<ul> <li>Biodiversity and Ecosystem Services</li> <li>Human Demographics &amp; Global Climate Change</li> </ul>
		<ul> <li>Threats to Biodiversity I</li> </ul>
13	Lab 10: Field Trip (Mt. Douglas)	Threats to Biodiversity I     Threats to Biodiversity II
15		-
		Overexploitation I
14	Lab Exam II	Overexploitation II     Exotic Species and Disease
14		
		Problems of Small Populations     Posonyo Docign
		Reserve Design

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 <a href="http://www.camosun.bc.ca">http://www.camosun.bc.ca</a>

# 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