# CAMOSUN COLLEGE School of Arts & Science Fall 2004 – Section 003A BIOL 102 Non-Majors Biology 2 COURSE OUTLINE

## The Approved Course Description is available on the web @ http://www.camosun.bc.ca/divisions/registrar/calendar/courses/bio.htm

### 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: William C. Hulbert, B.A., M.Sc., Ph.D.
- b) Office hours: 12:30-1:30 M,Tu; 9:30-10:30 W,Th,F, and by appointment
- c) Location: F246
- d) Phone: 370-T.B.A.
- e) E-mail: hulbertw@camosun.bc.ca
- f) Website: T.B.A.

### 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 2<sup>nd</sup> edition]

(b) Camosun College Biology Faculty. Fall 2004. Biology 102 Lab Manual, Camosun College, Victoria, B.C.

# **Course Content and Schedule**

| Lectures: | W,Th     | 4:30 - 6:00 | F238 |
|-----------|----------|-------------|------|
| Lab:      | M (001A) | 6:30 – 9:30 | F226 |

| Week  | Labs                            | Lecture                         |
|-------|---------------------------------|---------------------------------|
| Sept. | Holiday Monday – no labs        | Taxonomy, species concepts      |
| 7-10  |                                 | Taxonomy II                     |
|       |                                 | Scientific Method               |
| Sept. | Lab Safety; Lab 1:              | Scientific Method               |
| 13-17 | Microscopes                     | Viruses and Bacteria            |
|       |                                 | Protists                        |
| Sept. | Lab 2: Set up Bottle Ecology    | Protists                        |
| 20-24 | Lab 3: Set up Lab 3             | Fungi                           |
|       |                                 | • Fungi                         |
| Sept. | Lab 3 Soil diversity            | Plants                          |
| 27-1  | Lab 2: Examine Bottle Ecology   | Plants                          |
|       |                                 | Invertebrates                   |
| Oct.  | Lab 4 Protist & Fungi diversity | Invertebrates                   |
| 4-8   | Lab 2: Examine Bottle Ecology   | Invertebrates                   |
|       |                                 | Midterm I                       |
| Oct.  | Thanksgiving – labs             | Vertebrates                     |
| 12-15 | cancelled                       | Vertebrates                     |
|       |                                 | Vertebrates                     |
| Oct.  | Lab 5: Plant diversity          | Darwin's revolution (Evolution) |
| 18-22 | Lab 2: Examine Bottle Ecology   | Beyond Genesis                  |
| Oct.  | Lab Exam I                      | Microevolution                  |
| 25-29 |                                 | Macroevolution                  |
| Nov.1 | Lab 6: Animal diversity         | Population Ecology              |
| -5    | Lab 2: Examine Bottle Ecology   | Population Ecology              |
| Nov.  | Lab 7: Evolution                | Community Ecology               |
| 8-12  | Lab 8: Graphs, means,           | Remembrance Day – lectures      |
|       | distributions, and statistics   | cancelled                       |
|       | Lab 2: Examine Bottle Ecology   | Midterm II                      |
| Nov.  | Lab 9: Mark recapture           | Community Ecology               |
| 15-19 | Lab 2: Examine Bottle Ecology   | •                               |
|       |                                 |                                 |
| INOV. | Lad 2: Examine Bottle           | Biodiversity                    |
| 22-26 | Ecosystem & complete lab        |                                 |
| Nov.  | Lab 11: Predation               | Biodiversity                    |
| 29-3  |                                 | Ecosystems                      |
| Dec.  | Lab Exam II                     | Solutions and Reserves          |
| 6-10  |                                 | Review for Final                |
| Dec.  | Lecture Exam Final              |                                 |
| 13-21 |                                 |                                 |

## 5. Basis of Student Assessment (Weighting)

| Lab Exam I          | week of Oct. 25 | 10% |
|---------------------|-----------------|-----|
| Lab Exam II         | week of Dec. 6  | 15% |
| Midterm I           | Oct.8           | 15% |
| Midterm II          | Nov.12          | 15% |
| Final Lecture Exam  | as scheduled    | 25% |
| Assignments/quizzes |                 | 20% |

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

## 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.

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.

**Note:** There is the option of 1 free late assignment. There will be no penalty provided the assignment is received **prior** to it being marked and returned to the class. Any assignment received after its return to the rest of the class will be marked but will not receive credit.

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

## 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 <u>http://www.camosun.bc.ca</u>

# 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