

School of Arts & Science BIOLOGY DEPARTMENT

BIOL 102-HS1 Non-Majors Biology 2 2008W

LAB OUTLINE

1. Course Information

Course Description:

An introduction to biological diversity, evolution, ecology, scientific knowledge, and the biodiversity crises. Includes a survey of the major taxonomic groups of living organisms, the evidence for evolution, natural selection, the nature of scientific knowledge, and the impact of humans on the ecology of populations, communities and ecosystems.

<u>Prerequisites</u>: English 12 or assessment. *Math 10 recommended.* <u>Lab time and location</u>: Mondays, 6:30 – 9:20pm (*schedule is included on p.2) Fisher 238

2. Lab Instructor Information

Instructor: Jennifer Giuliani

Phone: 370-3909

E-mail: GiulianiJ@camosun.bc.ca

Office: E304 (**office hours available by appointment)

3. Intended Learning Outcomes

Upon completion of this course the student will be able to:

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

4. Required Materials

- (a) Text: Audersirk, T., Audersirk, G., Byers, B.E. 2005. **Biology Life on Earth (7**th **Edition).** Pearson Prentice Hall.
- (b) Lab manual: BIOL 102 Laboratory Manual.

5. Grading System

The following percentage conversion to letter grade will be used:

| | • | • | |
|----|-------------|---------------|--------------|
| A+ | = 90 - 100% | B = 73 - 76% | D = 50 - 59% |
| А | = 85 - 89% | B- = 70 - 72% | F = 0 - 49% |
| A- | = 80 - 84% | C+ = 65 - 69% | |
| B+ | = 77 - 79% | C = 60 - 64% | |

6. Lab Schedule

The following is a tentative schedule for Spectrum Community School Students:

| WEEK | DATE | LAB ACTIVITY | |
|------|----------|---|--|
| 1 | Feb 4 | NO LAB | |
| 2 | Feb 11 | NO LAB | |
| 3 | Feb 18 | NO LAB | |
| 4 | Feb 25 | Introduction to the Lab, Microscope Use, and Lab Safety | |
| 5 | Mar 3 | Lab 1: Microscopes | |
| 6 | Mar 10 | Lab 2: Bacteria, Protists, Fungi | |
| 7 | Mar 17 | SPRING BREAK (NO LAB) | |
| 8 | Mar 24 | EASTER HOLIDAY (NO LAB) | |
| 9 | Mar 31 | Lab 3: Plants | |
| 10 | April 7 | Lab 4: Animals | |
| 11 | April 14 | Lab 5: Diversity Review | |
| 12 | April 21 | Lab Exam I | |
| 13 | April 28 | Lab 6: Evolution | |
| 14 | May 5 | Lab 7: Science, Graphs, Statistics | |
| 15 | May 12 | Lab 8: Ecological Simulations | |
| 16 | May 19 | VICTORIA DAY (NO LAB) | |
| 17 | May 26 | Lab 10: (details TBA) | |
| 18 | June 2 | Lab Exam II | |
| 19 | June 9 | Lab 9: Field Trip (Mt. Douglas Park) | |

7. Basis of Student Assessment (Weighting)

| Lab Exam I | 12.5% | Remainder of course | 65.0% |
|-----------------|-------|---------------------|--------|
| Lab Exam II | 12.5% | Total | 100.0% |
| Lab Assignments | 10.0% | | |

Note: Lab exams will be unit exams. Please bring a pen and pencil to all lab exams.

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, at Student Services or the College web site at <u>camosun.ca</u>.

8. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.

Additional General Information:

Be sure that you are familiar with the General Department Policies, which are stated in the lab manual. The student conduct code will also be observed.

Please note: Plagiarism will not be tolerated in any form, and may result in a "0".

No programmable devices are allowed in exams.

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

Attendance:

You are expected to attend all classes, and be on time. It is your responsibility to acquire *all* information given during a class missed, incl. notes, hand-outs, assignments, changed exam dates etc.

Missed exams or quizzes cannot be made up except in case of documented illness (doctor's note required). Lab attendance is *mandatory*.

Labs:

It is *absolutely* necessary to read through each exercise before coming to lab. Otherwise you may not be able to finish on time and may not be able to complete your lab correctly. Being prepared will enable you to make the most of your time in lab and ensure that the lab operates smoothly and safely.

Assignments:

Unless otherwise stated, all assignments are due at the **beginning** of the lab/class of the due date. There is a **10%/day late penalty**. The format is expected to be professional, i.e. a neat, legible, clean copy. "Rough" drafts risk rejection and a subsequent late penalty. If the assignment is more than one page, **separate pages** *must be stapled* before you come to class.

You are encouraged to discuss assignments with your lab partner, however, each assignment has to be your individual work – beware of plagiarism.

Study Habits and Tips:

Biology 102 will require regular study and preparation ahead of each class. It is valuable to review your notes within 24 hours of each class, as that is a proven means of improving memory and retention of information. Study groups are a highly effective way of learning and the great discussions that you have in these groups just make biology even better!

If you have any questions, please ask!