School of Arts & Science

BIOL 124 Evolution and Diversity
Section 001 Fall 2010

COURSE OUTLINE

This course consists of studies in the general areas of evolution and organism diversity. Topics include natural selection, the genetic basis of evolution, speciation and evolutionary change, and the adaptive radiation of organisms.

Prerequisites: English 12 or assessment, and C+ in Biology 12 or equivalent

Section	**001-A**	**001-B**
Lecture	M W Th 10:30-11:20 *in F 200*	
Lab	T 10:30-1:20 *in F 226/(224)*	T 2:30-5:20 *in F 226/(224)*

1. Instructor Information

Instructor: **Annette Dehalt**, *M.Sc.*
Office hours: drop-in MW 12:00-1:30
Office location: F 248 D
Phone: 370-3432
e-mail: dehalt@camosun.bc.ca
web site: http://www.dehalt.disted.camosun.bc.ca

2. Intended Learning Outcomes

- identify and classify living organisms to their major taxonomic groupings, and to list their defining characteristics
- describe the major lines of evidence for evolution
- explain major topics in evolutionary theory
- discuss the nature of scientific knowledge; its limits and strengths, and how it is produced

3. Required Materials

(a) Textbook: Campbell, N.A. and J.B. Reece. 2007. Biology 8th ed.
(b) BIOL 124 Laboratory Manual
(c) Basic office supplies: pen, pencil, white-out, ruler, stapler…

4. Course Content and Schedule

The following tentative schedule is subject to change if deemed necessary by the instructor.
Midterms are scheduled for the first lecture of the week, unless specified otherwise.

Wk	Dates	Lecture (chapter no.'s in brackets)	Laboratory
1	Sept. 7 - 10 *no class: M Sept.6 =Labor Day*	Scientific process, biodiversity, species concept, systematics, origin of life, geologic time scale (*excerpts* of ch.1,4, 24,25,26,56)	Course overview; safety and laboratory procedures; study skills Darwin movie?
2	Sept. 13 - 17	Theory & evidence of evolution (ch. 22)	1. Phylogeny and Classification
3	Sept. 20 - 24	Micro-evolution (ch. 23; *excerpt* of ch. 51)	2. Natural Selection App. 3: Microscopes
4	Sept. 27 – Oct. 1	Speciation & Macro-evolution (ch. 24)	***Field-trip: Mt. Doug***
5	Oct. 4 – 8	**MID-TERM I** Prokaryotes (ch. 27) Viruses (*excerpt* of ch. 19)	4. Prokaryotes
6	Oct. 12 – 15 *no class: M Oct. 11 =Thanksiving Day*	Life cycles (*excerpt* of ch. 13) Protists (ch. 28)	4. Prokaryotes *cont.* 5. Protists
7	Oct. 18 - 22	Plant evolution (ch. 29 & 30) Seedless Plants (ch. 29)	**LAB EXAM I**
8	Oct. 25 – 29	Seed Plants (ch. 30)	6. Seedless Plants
9	Nov. 1 – 5	Fungi (ch. 31)	7. Seed Plants
10	Nov. 8 – 12 *no class:Th Nov.11= Remembrance Day*	**MID-TERM II** Animal evolution (ch. 25, 32)	8. Fungi
11	Nov. 15 - 19	Invertebrates (ch. 33)	9. Invertebrates
12	Nov. 22 - 26	Invertebrates cont.	10. Invertebrates
13	Nov. 29 – Dec. 3	Chordates/Vertebrates (ch. 34)	11. Chordates
14	Dec. 6 - 10	Vertebrates cont.	**LAB EXAM II**

FINAL EXAM during final exam period – scheduled by registrar – check CAMLINK
Avoid making travel or work plans during the exam period, as you are expected to give priority to your exam schedule!

5. Basis of Student Assessment

Exams:

Midterm I	15%
Midterm II	15%
Lab Exam I	15%
Lab Exam II	15%
Final Exam	25%
Assignments & Quizzes	15%

Midterms and lab exams will be unit exams (i.e. *not* cumulative).
The final lecture exam will be cumulative, with proportionately greater emphasis on the last unit (animals) not covered by previous midterms. Midterm and final exams will be a mix of multiple choice and short answer/short essay questions. Lab exams are set up as a series of "stations" consisting of equipment, data and/or specimens, with accompanying questions testing both practical and theoretical knowledge.

6. Grading System

The following percentage conversion to letter grade will be used:

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

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at camosun.ca for further information.

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

STUDENT 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

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

ADDITIONAL INFORMATION

Academic Conduct: Be sure that you are familiar not only with the Student Conduct Code (s.a.), but also with the General Department Policies, which are stated in the lab manual. **Cheating or plagiarism will not be tolerated in any form, and will result in "0".** Students may not use recording devices in the classroom without authorization of the Disability Resource Centre; distribution of any recorded material is prohibited.

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

Exams: Exams have to be written when scheduled. There are no make-up exams. **A missed exam results in "0" except in case of *documented* emergency or illness** (i.e. doctor's note required stating that student is unable to attend class during a specified time period – must be submitted **within 1 week** following the illness/emergency. With a valid excuse, the weighting of the missed exam will be added to the final exam, along with additional questions on course material of that unit. **Please bring a pen and soft pencil to all exams. No programmable devices are allowed in exams.**

Labs: You need to attend labs and lab exams during your assigned section (A or B). Switching between sections on a permanent or temporary basis requires instructor's permission. Lab assignments can only be handed in for labs actually attended (except in cases of documented illness/emergency). You are encouraged to discuss assignments with your lab partner, however, **each assignment has to be your individual work – beware of plagiarism.** It is absolutely necessary to read and mentally **work through each exercise before coming to lab**; otherwise you may not be able to finish on time, impose on your lab partner(s), or flunk a pre-lab pop quiz.

Assignments: Unless otherwise stated, all assignments are due by the ***beginning*** of the lab/class of the due date. One late assignment/term is penalty-free – otherwise a **15%/day non-negotiable late penalty** (rounded to the nearest full mark) applies except in cases of documented illness/emergency. Late assignments will **not** be accepted after marked assignments have been returned to the rest of the class one week after the due date. A **professional format** is expected, i.e. a neat, legible (printed or word-processed), clean copy. If the assignment is more than one page, separate pages must be **stapled**. "Rough" drafts risk rejection and a subsequent late penalty or reduced marks.

Study Habits: You will probably find this course not very difficult, but surprisingly labor-intensive. Good (regular!!) study habits are required to do well in this course. You should plan on a ***minimum*** **of 6 hours** outside of scheduled class time for the completion of assignments and for general studying. Joining a study group can help this make more fun. Some **"study hints" and review questions are posted on the course web site**, and the college also offers study skill courses and individual consultations.

Lecture notes will be provided in point form and posted on the web for you to print prior to class. These should be used as a guideline, not as your sole source of information! You will need to write down additional notes of examples and explanations given during lecture. It is also recommended practice to transcribe these notes into a study-friendly format after each lecture, incorporating additional information from your textbook and other sources. Study these notes before the next class to prepare yourself for new material, which will often build on previously covered material.

Exam questions will be based on material covered or referred to in class. However, studying additional details in the corresponding textbook sections and other sources will help you understand the material more thoroughly. It is not sufficient simply to memorize point-form notes! Please keep up with your readings, and take advantage of office hours if you need extra clarification and help, or simply would like to discuss a topic a little further.