



School of Arts & Science  
BIOLOGY DEPARTMENT  
BIOLOGY 124  
Evolution & Biological Diversity  
Winter 2011 (Jan - Apr)

**COURSE OUTLINE**

The course description is online @ <http://camosun.ca/learn/calendar/current/web/biol.html>

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**1. Instructor Information**

Instructor:	Rosemary Mason		
Office Hours:	T.B.A.		
Location:	Ewing 236		
Phone:	250-370-3301	Alternative Phone:	n/a
Email:	masonr@camosun.bc.ca		
Website:	<a href="http://online.camosun.ca">http://online.camosun.ca</a>		

**2. Intended Learning Outcomes**

Upon completion of this course the student will:

- 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 major topics in evolutionary theory

**3. Required Materials**

- 1) Textbook: Campbell, N. A. & J. B. Reece. 2007. Biology, 8<sup>th</sup> ed., Pearson Education, Inc., San Francisco, CA.
- 2) Camosun College Biology Faculty. Winter 2011. Biology 124 Lab Manual, Camosun College, Victoria, B.C.

#### 4. Course Content and Schedule

##### Lecture

Wed., Thurs., Fri. 9:30 – 10:20 F200

##### Lab

Section 001A Mon. 8:30 – 11:20 F224  
 Section 001B Mon. 1:30 – 4:20 F224

The schedule, which follows, is an attempt to outline the weekly activities of the class. It is subject to change or modification as the need arises.

Date	Lecture Topic	Ch.	Laboratory Exercise
Jan. 10 -14	Biological Diversity lecture Evolution – Darwinian	22	Introduction to lab
Jan. 17 - 21	Phylogeny Population Evolution	26 23	Lab 3 Woodlice
Jan. 24 - 28	Species Evolution	24	Lab 1 Phylogeny Appendix 3 - Microscopes
Jan. 31 - Feb. 4	Prokaryotes	27	Microscope quiz Lab 4 Prokaryote lab
Feb. 7 - 11	Protists <b>Lecture Midterm 1</b>	25 28	Lab Fieldtrip
LFeb. 14 - 18	Protists	28	Lab 4 Prokaryote lab - complete Lab 5 Protist lab
Feb. 21 - 23	Seedless Plants	29	<b>Lab Midterm</b>
<b>Feb. 24 &amp; 25 – College closed for reading break</b>			
Feb. 28 – Mar. 4	Seed Plants	30	Lab 6 Seedless plant lab
Mar. 7 - 11	Fungi Animal Evolution	31 32	Lab 7 Seed plant lab
Mar. 14 - 18	Invertebrates <b>Lecture Midterm 2</b>	33	Lab 8 Fungi Lab
Mar. 21 - 25	Invertebrates	33	Lab 9 Invertebrate
Mar. 28 – Apr. 1	Vertebrates	34	Lab 10 Invertebrate
Apr. 4 - 8	Vertebrates	34	Lab 11 Vertebrate
Apr. 11 - 15	Review & Catchup		<b>Lab Final</b>

## 5. Basis of Student Assessment (Weighting)

Lab Exam I	12.5%
Lab Exam 2	15%
Lecture Midterm I	12.5%
Midterm II	15%
Final Lecture Exam	25%
Assignments/quizzes	20%

\*\*\* Lab exams will be unit exams. Lecture exams will be cumulative.

## 6. Grading System

### Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

### Temporary Grades

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](http://camosun.ca) for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete</i> : A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress</i> : A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 <sup>rd</sup> course attempt or at the point of course completion.)
CW	<i>Compulsory Withdrawal</i> : A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

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

### LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist you throughout your learning. This information is available in the College calendar, at Student Services, or the College web site at [camosun.ca](http://camosun.ca).

### 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 the College web site in the Policy Section.

### ADDITIONAL INFORMATION

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 must contact the instructor **prior** to missing a lab or lecture exam. Makeup exams will only be given for documented valid absences.

## **What this Course Promises You**

Who are we? How did we get here? At some point or points in our life we all ask these questions. Biologists ask these questions, too, but in a broader context. For a biologist, 'we' refers not just to humans but to all living organisms. In this course you will have the opportunity to explore these questions. You will also gain insight into other less high falooting questions. Why, for example, is it essential to continue a course of antibiotics until the prescription is used up even though you may feel better before? How likely are organisms to cope with global warming by changing? Why do those herbicides that are effective in the short term often fail in the long term? Where do those snooty Latin names come from and why do biologists use them? Why do drug companies systematically explore some families of organisms for medicines and not others?

If you embrace and apply the ideas of this course you will understand how biologists think living organisms arose. This understanding will enable you to group all organisms into biologically meaningful patterns and name them. You will become a knowledgeable participant in the larger ongoing scholarly discussion about natural selection, evolution and biodiversity.

## **How You Will Fulfill These Promises**

To realize these promises you must take responsibility for your own learning and participate as an active learner. Can you be committed to this class? You must make this choice. This is not the type of class you can drop into occasionally; you have to be really involved.

To take charge of your education, you must be willing to read and write. If you do not learn to communicate in words, you cannot formulate fully developed thoughts. To accomplish these goals, you will be given assignments that you will read, analyze, and think about between each class. You will also write abstracts for two biological papers. These assignments will help you refine your thinking and understanding so that it becomes clearer, more precise, logical, and well-grounded in fact.

## **Ways to Understand the Nature and Progress of your Learning.**

To evaluate your progress in reaching these goals (and to provide you with feedback on your learning) we will use the following items:

1. Lecture and lab exams designed to assess your recall and understanding of the biological concepts relating to evolution and phylogeny. The lecture exams will be cumulative. The goal here is to encourage you to continue to learn and receive feedback on the critical concepts of the course.
2. Two papers mentioned above.
3. Ongoing group and individual quizzes and assignments designed to solidify and clarify concepts from the course.