

# School of Arts & Science BIOLOGY DEPARTMENT BIOL 124-002 Evolution and Diversity Winter 2015

### **COURSE OUTLINE**

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

Ω Please note: the College electronically stores this outline for five (5) years only. It is strongly recommended you keep a copy of this outline with your academic records. You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

### 1. Instructor Information

Instructor:	Sarah Cockburn		
Office Hours:	M/Th 11:00-12:30, W 11:00-12:00		
Location:	Fisher 352		
Phone:	250 370 3925		
Email:	cockburns@camosun.bc.ca		
Website:	http://online.camosun.ca/ (D2L entry site)		

## 2. 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 major topics in evolutionary theory.
- 4. Discuss the nature of scientific knowledge in biology, its limits and strengths, and how it is documented.

## 3. Required Materials

(a) **Textbook**: Campbell Biology, Canadian Edition. 2015. Biology, 1st ed., Pearson Education, Inc., San Francisco, CA.

\*Note: Campbell Biology 10<sup>th</sup>, 9<sup>th</sup> and 8<sup>th</sup> US edition are also okay to use as a textbook

(b) Lab Manual: Biology 124 Lab Manual (Fall 2015), Camosun College.

### 4. Course Content and Schedule

**Lectures:** Mon (Y201) 9:30 AM – 10:50AM

Wed (Y201) 9:30 AM - 10:50AM

**Lab Section A:** Thur (F244) 2:30 PM - 5:20 PM**Lab Section B:** Mon (F224) 2:30 PM - 5:20 PM

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## 5. Basis of Student Assessment (Weighting)

Midterm I	15%
Midterm II	15%
Lab Exam I	10%
Lab Exam II	15%
Assignments/quizzes/participation	15%
Final Exam	30%

<sup>\*\*\*</sup> Lab exams will be unit exams. Lecture exams will be cumulative.

Midterm and final exams will consist of multiple choice and short answer 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

### Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		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** for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description		
I	Incomplete: 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	In progress: 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	Compulsory Withdrawal: 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 them throughout their learning. This information is available in the College calendar, at Student Services, or the College web site at <a href="mailto:camosun.ca">camosun.ca</a>.

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#### 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

## **Plagiarism**

Plagiarizing is appropriating the work of another or parts or passages of another's writing (including the ideas or language) and passing them off as the product of one's own mind or manual skill. **Plagiarism will not be tolerated.** All written material must be done individually. This **includes lab data and graphs**; although lab work is done in groups, material submitted for grading must be processed and submitted independently. Plagiarism, **including the copying of any part of assignments or lab assignments**, is a serious offence and is considered to be academic misconduct.

### Cheating

A student caught cheating on an exam will forfeit all credit for that exam and perhaps for the course. Cheating is a serious offence and is considered to be academic misconduct. Cheating includes, but is not limited to, using unauthorized materials in a quiz/exam and providing information to another person regarding exam content.

The consequences for cheating and plagiarism are outlined by Camosun College policies (see: <a href="http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf">http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf</a> <a href="http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.1.pdf">http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf</a>

## Lab Safety

Under **NO** circumstances will students ingest food or drink in the lab. Taking oral medication or applying makeup or lip balm in the lab is also prohibited. You may leave the lab at a convenient time if you are thirsty, need a snack or require medication. For safety reasons students are **required** to wear closed shoes. Flip flops and sandals are not acceptable.

## **Laboratory Attendance**

The laboratory experience is critical to the course objectives and so attendance throughout the entire laboratory session is mandatory and will be noted. Lateness in arriving, failure to attend the lab or leaving the lab before its scheduled finish time will result in forfeiting credit for that lab, including any written assignments.

If a lab session is missed, another student's data *may not* be used to complete a lab assignment for credit. Exceptions can be made *at the instructor's discretion* in legitimate cases of emergency (e.g. illness); in such cases the instructor must receive *advance notification* and *documented evidence* of the situation (e.g. medical certificate) and grant approval for any accommodation. In cases when a lab is done over two weeks, missing one of the weeks without instructor approval will result in a 50% reduction in the grade for any assignment associated with that lab.

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, annoy your lab partner, or flunk a pre-lab pop quiz. Please also come prepared with a pencil and a few sheets paper and your lab manual.

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#### **Lecture Attendance**

Attending lectures is a critical part of succeeding in this course. There may be some in class quizzes and other in-class activities for marks. If you know that there is a lecture that you will miss where an announced activity will take place, you must let me know ahead of time and have a legitimate reason to miss it (e.g. an emergency or an illness with documented evidence). Lectures will be delivered in a PowerPoint format. PowerPoint slides will be made available on the Biology 124 D2L website.

### Missed Exams and Assessments

Quizzes and the exams must be written at the scheduled times. Under no circumstances will make-up exam be administered. However, it is understood that emergency circumstances occur (e.g. illness or emergency in the immediate family); for such circumstances accommodation may be offered at the discretion of the instructor, provided (a) the instructor is notified in advance of the exam (not after) and (b) the student provides documented evidence of the circumstance (i.e. medical certificate). The accommodation will be in the form of a make-up exam or adjusting the weighting of the final lecture exam to make up the missing marks, at the discretion of the instructor.

Please note: holidays or scheduled flights are not considered to be emergencies!

### **Late Penalties**

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 (including weekend days). 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

**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.

### **Study Habits:**

Lecture notes will be provided in point form. These should be used as a study guide, not as your sole source of information! You will need to write down additional key words for 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. Study these notes before the next class to prepare yourself for new material, which will often build on previously covered material.

Due to time constraints, not all details can be covered in lecture, and you may be held responsible for textbook material not specifically discussed in class. 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.

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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.

Wk	Dates	Lecture	Laboratory
1	Sept. 8-11 no class: M Sept.7 =Labor Day	Biological Diversity lecture Evolution – Darwinian	No lab
2	Sept. 14-18	Phylogeny Population Evolution	Lab Safety 1. Phylogeny and Classification App. II: Microscopes
3	Sept. 21-25	Species Evolution	2. Field-trip: Mt. Doug
4	Sept.28-Oct.2	Prokaryotes	3. Bacteria
5	Oct. 5-9	MID-TERM I Protists	Bacteria cont.     Protists
6	Oct. 13-16 no class: M Oct. 12 =Thanksgiving Day	Protists	No lab
7	Oct. 19-23	Seedless Plants	LAB EXAM I
8	Oct. 26-30	Seed Plants	5. Seedless Plants
9	Nov. 2-6	Fungi	6. Seed Plants
10	Nov. 9-13 (W Nov.11= Remembrance Day)	MID-TERM II Animal evolution	7. Fungi
11	Nov. 16-20	Invertebrates	8. Invertebrates I
12	Nov. 23-27	Invertebrates	9. Invertebrates II
13	Nov.30-Dec.4	Vertebrates	10. Chordates
14	Dec. 7-11	Vertebrates	LAB EXAM II

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