

# BIOLOGY 150A – MODERN BIOLOGY

Fall 2016

Department of Biology, University of Victoria

## Course Description

An introduction to biological science, emphasizing the diversity of organisms and the evolutionary and ecological principles underlying this diversity. Topics include the history of life, genetics, mechanisms of evolution, biological diversity, and the ecology of communities and ecosystems.

## Meetings

Section A01: TWF 9:30 – 10:20 AM, Engineering and Computer Science 123

Section A02: TWF 1:30 – 2:20 PM, Harry Hickman 105

## Instructors

- Dr. Greg Beaulieu (history of life, genetics, evolution); office: 006 Petch; phone: 721-7140. Email: gregoryb@uvic.ca. If you send an email, please put "Biology 150A" in the message line.  
Office hours: Tuesday, 10:30 AM – 12:30 PM, or by appointment, or drop by.

Dr. Beaulieu will also be serving as **course coordinator**, so if you have any course business or other issues, he is the person to see.

- Dr. Barbara Ehling (biological diversity, ecology), Petch 005, 472-4066  
Email: behling@uvic.ca. If you send an email, please put "Biology 150A" in the message line.  
Office hours: TBA

Both of us love biology, have had a lifelong involvement with it, and hope to transmit to you the endless fascination and excitement of the scientific study of life.

## Required Text

*Campbell Biology – Concepts and Connections*, Canadian edition. Available in the bookstore. We do not recommend any other edition of this text or any other text. This is not the same text that was used in Biology 150A/B last year.

## Course Website

Biology 150A has a CourseSpaces website. Each instructor will be using the site in different ways, but you may find there lecture notes and notices, marks and links.

Please be aware that the lecture notes we post are for personal use only and must not be published, distributed, sold or posted on any other website.

### **Class Conduct**

We ask you to be mindful of where you are, and to treat the people around you with respect and courtesy. Talking in class, texting and surfing are all irksome to students sitting nearby and to the instructor. Please turn your cell phones and all social media sites OFF during class time.

### **Evaluation**

Midterm 1 (Friday, October 7)	25% (Dr. Beaulieu's material only)
Midterm 2 (Friday, November 4)	25% (Dr. Ehltling's material only)
Final Exam (December exam period)	50% (cumulative, with emphasis on material covered since Midterm 2)

All exams will be multiple choice format.

### **Midterms, Final Exam and Grading Policy**

No electronic devices will be permitted during the midterms and final exam.

During the midterms and the final exam, invigilators cannot answer any clarification questions. However, if you believe a question is bad (no correct answer, more than one equally correct answer), please bring your concerns to the attention of an invigilator as soon as possible after the exam.

If you must miss a midterm for a valid reason (illness, accident, family affliction, or competition as a UVic athlete), you must notify the course coordinator (Dr. Beaulieu, [gregoryb@uvic.ca](mailto:gregoryb@uvic.ca)) as soon as possible and provide suitable documentation for your absence. Your course grade will be computed from the other components of the course, and you will not be penalized.

The final exam can be deferred in cases of illness, accident, family affliction, or commitments as a UVic athlete. If you expect to miss the final exam for any of these reasons, please notify the course coordinator (Dr. Beaulieu, [gregoryb@uvic.ca](mailto:gregoryb@uvic.ca)) as soon as possible, either by phone, email or in person. You must also fill out a Request for Academic Concession (RAC) form, available from Undergraduate Admissions and Records in the University Center or online (<http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf>).

In order to pass this course, you must write the final exam and at least one of the midterms. If you miss both midterms, you will receive a grade of N.

Travel plans are not a valid reason for missing a midterm or the final exam, even Christmas travel plans, and even if a plane ticket has been purchased for you by someone else without your knowledge. Please do not make plans to leave Victoria in December until all your exams are finished.

This term, the final exam period ends for all faculties on Monday, December 19; the last exam will be in the evening of that day. Your last exam might be on this date, or it might be sooner – you will know for sure when the final exam schedule is drawn up in October.

### **Deferred final exam**

For those students who need to defer the final exam for any of the reasons listed above, the deferred final will be written on Saturday, January 7, 2017, 10:00 AM – 1:00 PM, in Bob Wright B150. This constitutes your official notice of the time and place.

### **Grading Policy**

In determining final grades for the course, our spreadsheet will round your course score to the nearest whole percent. That is the official course grade that will be submitted for you.

We cannot change your grade for any reason, except if we have made an error calculating it. There is no extra work that you can do to raise your grade.

### **Important dates**

On the UVic website you will find a fuller list of important dates, but the ones we have listed below are the ones that will matter to students in Biology 150A and to students wishing to add the course this term.

Wednesday, September 7	First day of classes
Tuesday, September 20	Last day for 100% reduction of tuition fees for standard first-term and full-year courses
Friday, September 23	Last day for adding classes
Friday, October 7	<b>Biology 150A Midterm Exam 1; Dr. Beaulieu's material only</b>
Monday, October 10	Thanksgiving holiday
Tuesday, October 11	Last day for 50% reduction in tuition fees for standard courses. 100% of tuition fees will be assessed for courses dropped after this date.
Monday, October 31	Last day for withdrawing from courses without penalty of failure
Friday, November 4	<b>Biology 150A Midterm Exam 2; Dr. Ehlting's material only</b>
Wed-Fri, November 9-11	Reading break, no classes
Friday, December 2	Last day of classes
Monday, December 5	First day of final exam period
Monday, December 19	Last day of final exam period
Saturday, January 7, 2017	Deferred final exam, 10:00 AM – 1:00 PM, Bob Wright B150

### **Instructors, Lecture Topics and Readings**

These topics and readings are tentative. Each lecture instructor will confirm them or change them in class and on the CourseSpaces website before each topic comes up.

#### Part A – Dr. Greg Beaulieu

<i>Topic</i>	<i>Text Reading</i>
History of life	Chapter 13, pp. 276-277, 283-286
Cell Cycle	Chapter 8, pp. 138-147, 151-159
Genetics	Chapter 9, pp. 168-176, 182-185, 188-192
Introduction to Evolution	Chapter 13, pp. 270-275, 278-280
Evolution of Populations	Chapter 14, pp. 289-300
Speciation and Systematics	Chapter 14, pp. 304-308; Chapter 15, pp. 311-329

#### Part B – Dr. Barbara Ehling

<i>Topic</i>	<i>Text Reading</i>
<b>Diversity of life:</b>	
Prokaryotes	Chapter 17 (and parts of 16)
Protists	Chapter 18
Fungi	Chapter 18
Plants	Chapter 19
Invertebrates	Chapter 20
Vertebrates	Chapter 21
<b>Ecology:</b>	
The biosphere; introduction to ecology	Chapter 35
Behavioral ecology	Chapter 36
Population ecology	Chapter 37
Community interactions	Chapters 38, 39
Ecosystem ecology	Chapter 40
Conservation	Chapter 41