BIOLOGY 150A – MODERN BIOLOGY

Fall 2018
Department of Biology, University of Victoria

Course Description
An introduction to biological science, discussing 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, MacLaurin A144 (David Lam Auditorium)
Section A02: TWF 1:30 – 2:20 PM, Fraser 159

Instructors

- Dr. Greg Beaulieu (history of life, genetics, evolution; September);
  office: 006 Petch
  phone: 250-721-7140
  email: gregoryb@uvic.ca. If you send an email, put "Biology 150A" in the message line.
  Office hours: Wednesday, 2:30 – 3:30 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 Ehlting (biological diversity, ecology; October – November),
  office: Petch 005
  phone: 250-472-4066
  email: behlting@uvic.ca. If you send an email, 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. This is the same text that was used in Biology 150A/B last year, so used copies are available.

The text prices of various formats are as follows (as of late August; these prices are not official):
UVic Bookstore – new book $166.75; used book $124.75; etext (access for 180 days) $88.00
SubText – used book $75-$130 range

New copies of the text come with access to the publisher's website, which has the etext and supplemental materials. This access can be useful, but we do not require website access in this course, so a used book will do fine.

If you decide to use some other edition of the book or some other biology text, for budgetary reasons or reasons of convenience, you will have to find the relevant pages in the book you have, based on the lecture material.

Course Website
Biology 150A has a CourseSpaces website. There you will find lecture notes, notices, marks and links. Please be aware that the lecture notes we post on CourseSpaces are for personal use only and must not be published, distributed, sold or posted anywhere else.

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.

Focusing on the lecture instead of being distracted by the internet will help you to be successful in this course and in all your other courses.

Make friends
Get to know the people around you. It is useful if you know someone in the class from whom you can get expanded notes in case you miss a class, and to whom you can lend your notes when needed. (The lecture notes we post on CourseSpaces are skeletal notes only.) And the friendships you make in your undergrad years can last a lifetime.

Evaluation

Midterm 1	(Friday, October 5)	25% (Dr. Beaulieu's material only)
Midterm 2	(Friday, November 2)	25% (Dr. Ehlting's material only)
Final Exam	(December final exam period)	50% (cumulative, with emphasis on material covered since Midterm 2)

The two midterms will be written during the regular class periods.
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 about the exam. 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) 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 in December, please notify the course coordinator (Dr. Beaulieu, gregoryb@uvic.ca) as soon as possible, either by phone, email or in person. To make your deferred status official in the eyes of the university, 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 without being sure that your final exams in all your courses will be over.

This term, the final exam period ends for all faculties on Saturday, December 22; 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 won't know until the final exam schedule is posted 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 12, 2019, 10:00 AM – 1:00 PM, in Bob Wright B150. *This constitutes your official notice of the time and place.*

Grading Policy
In determining your final grade 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, except if we have made an error in determining it. There is no extra work that you can do to raise your grade. *Please do not ask us to raise your grade because you need or want a higher one.*

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 5	First day of classes
Friday, September 21	Last day for adding classes
Friday, October 5	**Biology 150A Midterm Exam 1; Dr. Beaulieu's material only**
Monday, October 8	Thanksgiving holiday
Wednesday, October 31	Last day for withdrawing from courses without penalty of failure
Friday, November 2	**Biology 150A Midterm Exam 2; Dr. Ehlting's material only**
Mon-Wed, November 12-14	Reading break, no classes or labs
Wednesday, December 5	Last day of classes
Saturday, December 8	First day of final exam period
Saturday, December 22	Last day of final exam period
Saturday, January 12, 2019	Deferred final exam, 10:00 AM – 1:00 PM, Bob Wright B150

Instructors, Lecture Topics and Readings

These topics and readings are tentative. The instructors many change them or drop them as each topic comes up in class.

History of Life, Genetics and Evolution (Dr. Greg Beaulieu)

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

Diversity of life (Dr. Barbara Ehlting)

Prokaryotes	Chapter 16, pp.338-344; Chapter 17, pp. 359-366, 369-374
Protists	Chapter 18, pp. 376-386
Fungi	Chapter 18, pp. 387-393
Plants	Chapter 19, pp.396-413, 503
Invertebrates	Chapter 20, pp. 415-437
Vertebrates	Chapter 21, pp. 440-452

Ecology (Dr. Barbara Ehlting)

Introduction to ecology	Chapter 35, pp. 744-763
Behavioural ecology	Chapter 36, pp. 767-786
Population ecology	Chapter 37, pp. 790-803
Community interactions	Chapter 38, pp. 807-820
Ecosystem ecology	Chapter 40, pp. 846-853
Conservation	Chapter 41, pp. 858-876