

BIOLOGY 184 – Evolution and Biodiversity

Fall 2016

Department of Biology, University of Victoria

Course description

This course will survey all of biological diversity – prokaryotes, protists, plants, fungi and animals – and will use one of the fundamental facts of the living world, evolution, to tie together this diversity. It will also introduce genetics.

Lecture meetings

A01 – Monday and Thursday, 8:30 – 9:50 AM, Bob Wright B150

A02 – Monday and Thursday, 11:30 AM – 12:50 PM, Bob Wright B150

A03 – Monday and Thursday, 3:30 – 4:50 PM, Bob Wright B150

Lecture instructors

- Dr. Greg Beaulieu, Petch 006, phone 250-721-7140. Email gregoryb@uvic.ca.

If you send an email, please put “Biology 184” in the message line.

Office hours: Tuesday, 10:30 AM – 1:00 PM; or by appointment; or just drop by.

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

- Dr. Patrick von Aderkas, Petch 052, phone 250-721-8925.

Email: BIOL190B@uvic.ca. Office hours: please make an appointment.

- Dr. Rossi Marx, Petch 105, phone 250-721-7089.

Email: zoology@uvic.ca. Office hours: please make an appointment.

Lab coordinator

Alicia Rippington, Senior Lab Instructor, Cunningham 010, phone 250-721-8713.

Email: biologylabs@uvic.ca

Prerequisite

Any one of: Biology 11, Biology 12, Biology 150A, Biology 150B, Biology 186. A course in chemistry at either the high school or university level is strongly recommended.

Required text

Campbell Biology, special UVic custom edition (a modification of the first Canadian edition), by Reece, Urry, Cain, Wasserman, Minorsky and Jackson. Available in the bookstore. This is the same book that will be used in Biology 186.

A used copy of the text is acceptable. We will not require you to use the text website maintained by the publisher, so you do not have to buy access.

Labs

Labs begin on Monday, September 12. Please purchase a lab manual from the bookstore and bring it to the first lab. **You must come to your first lab to hold your place in the course.**

Students sometimes have challenges and queries pertaining to lab assignments and exams. If you have such an issue, your TA and the senior lab instructor will be happy to discuss it with you, but please raise the issue with them within one week after receiving the marked assignment or exam. We cannot consider appeals after that.

Course website

Biology 184 has a CourseSpaces website, where you will find lecture and lab notices, test results, practice questions, exam information, links and lecture notes. Please check the site before each class and lab.

Class conduct

We would like to remind students that talking in class, texting, surfing, reading a newspaper and eating three-course dinners are all irksome to students sitting nearby and to the instructor. We ask that you be mindful of this and treat the people around you with respect and courtesy.

Remember where you are and what you are doing here.

Evaluation

Midterm Exam (Wednesday, October 12, 7:00 – 9:00 PM)

- The exam will involve some questions from the lecture (all multiple choice), and some from the lab (written answer).
- The lecture questions will count 15% of your course grade; the lab questions will be part of your overall lab grade.
- See the table on page 3 of this course outline for the room you should go to for your exam.
- Some students will have a commitment elsewhere this evening. See page 3 of this course outline for alternative exam arrangements.

Final Exam (December final exam period)

- The final exam will involve some questions from the lecture (all multiple choice), and some from the lab (written answer). The lecture material will be cumulative, meaning that the exam will test all lecture topics of the course, but with an emphasis on material covered in class since the midterm. The lab exam will not be cumulative.
- The exam will be written in the McKinnon Gym at a time that will be scheduled by the university.
- The lecture questions will count 45% of your course grade; the lab questions will be part of your overall lab grade.

Lab

- All the lab evaluation components will add up to 40% of your course grade.

You must pass the lab in order to pass the course. If you fail the lab, your course grade will be an F. We will determine if you passed the lab by rounding your lab grade out of 40 to the nearest whole number; 20/40 is the pass line. So 19.51 would round up to 20, and you would pass, but 19.49 would round down to 19, and you would not pass.

Biology 184 has nine lab sessions (not including exams). If you miss three or more of these, you will receive a course grade of F, even if you have a medical excuse for the missed sessions.

In the lab, the Academic Integrity assignment is an official requirement of the course. That means that you must pass this assignment, or you will get an N (incomplete) in the course (see **Grading**, below).

You will also get an N if you do not write the final exam in December without a valid excuse.

It is not necessary to pass the lecture exams (midterm and final), either together or individually, to pass the course. It is possible to fail the lecture exams and still be saved by a good lab mark.

Rooms for the midterm on Wednesday, October 12, 7:00 – 9:00 PM

First letter of

<u>last name</u>	<u>Exam room</u>
A – C	Engineering and Computer Science 123
D – I	Bob Wright B150
J – K	Elliot 167
L – N	David Lam Auditorium (MacLaurin A144)
O – R	Elliot 168
S	Engineering and Computer Science 125
T – V	Human and Social Development A240
W	Cornett B108
X – Z	Engineering and Computer Science 108

Students who have a commitment in another course (class, lab, tutorial) are eligible to write a deferred Midterm Exam. This will take place on Saturday, October 15, 10:00 AM – 12:00 noon, in Bob Wright B150. Please notify the course coordinator (Dr. Beaulieu, gregoryb@uvic.ca) before the exam if you have such a commitment.

Exam policy

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

During the midterm exam and the final exam, the 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 the invigilator who is collecting the exams.

If you must miss the midterm exam 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.

You will be excused from the midterm, and your course grade will be calculated from the other components of the course. You will not incur any penalty.

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) 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>).

Travel plans are not a valid reason for missing the midterm exam 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. 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 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 7, 2017, 10:00 AM – 1:00 PM, in Bob Wright B150. This constitutes your official notice of the time and place.

Grading

At the University of Victoria, grades are submitted by instructors as percentages. These will be converted to letter grades by administration, according to the grading scale given in the university calendar.

Please do not ask us to raise your percent grade in order to qualify you for a higher letter grade. We turn down all such requests.

No supplemental final exam (second-chance final exam) will be given in this course, although, as described above, you may defer the final exam for any of the reasons given.

You will receive a grade of N in the course in either of these cases:

- you do not complete the academic integrity assignment in the lab
- you miss the final exam without a valid reason

You will receive an F in the course in any of these cases:

- you miss three or more labs, even with medical or other documentation
- you do not pass the lab (20/40)
- you pass the lab but have an aggregate course grade less than 50%.

Cheating and Plagiarism

The University and the Biology Department deal with cheating and plagiarism as a serious matter, since ignoring it could be interpreted as endorsing dishonest practice in one's later professional career. To claim ignorance of the University's policy on academic integrity is, therefore, not excused.

Please read the policy carefully to avoid unpleasant misunderstandings. The policy can be found on the online UVic calendar (<http://web.uvic.ca/calendar2016-09/undergrad/info/regulations/academic-integrity.html>).

The University of Victoria Department of Biology reserves the right to use plagiarism detection software or other platforms to assess the integrity of student work.

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 184 and to students wishing to add the course this term.

Wednesday, September 7	First day of classes
Monday, September 12	First day of labs in Biology 184
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
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.
Wednesday, October 12	Biology 184 Midterm Exam, 7:00 – 9:00 PM
Saturday, October 15	Midterm exam for students with an obligation on October 12
Monday, October 31	Last day for withdrawing from courses without penalty of failure
Wed-Fri, November 9-11	Reading break, no classes and no labs
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

Lecture topics and readings (tentative)

Lecture notes for each topic will be posted on the CourseSpaces site; please bring them to class. The posted notes will also include page readings from your text.

Dr. Beaulieu

Evolution and systematics	Chapter 26, pp. 574-588
The cell cycle & sexual life cycles	Chapter 12, pp. 243-253; Chapter 13
Prokaryotes	Chapter 26, pp. 589-591; Chapter 27

Dr. von Aderkas

Protists	selected readings to be announced
Seedless plants	Chapter 29
Seed plants	Chapter 30

Dr. Beaulieu

Fungi	Chapter 31, pp. 684-688, 694-697
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Dr. Marx

Introduction to animal diversity	Chapter 32, pp. 703-714
Invertebrates	Chapter 33, pp. 716-746
Chordates	Chapter 34, pp. 749-775

Dr. Beaulieu

Genetics	Chapter 14, pp. 281 – 295; Chapter 15, pp. 307 – 310
Introduction to evolution	Chapter 22
Evolution of populations	Chapter 23
Speciation	Chapter 24, pp. 522-532