

BIOLOGY 351 – THE BIOLOGY BEHIND THE NEWS

Spring 2016

Department of Biology, University of Victoria

Course Description

An examination of the biological science that bears on current environmental, social, ethical and political issues. Emphasis on how an understanding of the science might inform decision-making by individuals and groups.

Instructor

Dr. Greg Beaulieu, 006 Petch, 250-721-7140.

Email: gregoryb@uvic.ca. If you send an email, please put "Biology 351" in the message line.

Office hours: Wednesday, 1:30 – 3:30 PM; or by appointment; or just drop by.

Prerequisite

Third year standing.

Meetings

Tuesday, Wednesday and Friday, 9:30 AM – 10:20 PM, Harry Hickman 110

Text (required)

Biology for a Changing World, with Physiology, second edition, Michele Shuster, Janet Vigna, Matthew Tontono, Gunjan Sinha, WH Freeman/Scientific American, 2014.
Available in the bookstore.

Course Website

Biology 351 has a CourseSpaces site, on which you will find notices, marks and lecture notes. You should bring the relevant lecture notes to each class.

Evaluation

Midterm 1	(Friday, February 5)	25%
Midterm 2	(Tuesday, March 15)	25% (not cumulative)
Final Exam	(April exam period)	50% (cumulative)

The exams will be mixed format – multiple choice, short answer, longer answer.

Exam and Grading Policy

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

The midterms cannot be deferred. If you must miss a midterm for a valid reason (illness, accident, family affliction, or commitments as a UVic athlete), your final mark will be calculated on the basis of the other components of the course, and you will not incur any penalty. If you expect to miss a midterm for any of the above reasons, please notify the instructor as soon as possible and produce supporting documentation upon your return.

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 instructor as soon as possible. You must also fill out a Request for Deferred Exam form, available from the Records office; it is not enough just to notify the instructor. A deferred final exam will normally be written at the end of July, although other arrangements can be made.

Travel plans are not a valid reason for missing a midterm or the final exam.

Course Topics (tentative)

Molecules

The chemistry of life, here and elsewhere
Biofuels
DNA markers and DNA fingerprinting

Cells

Stem cells
The immune system in fact and in fiction

The Human Organism

Concussion and sports
Drug development and drug testing
Space flight biology
Life extension
Evolution – its uses and abuses

Biology and Society

The biology of disadvantage
The biology of belief

Environment

Bees in trouble
Endangered soils
Biological consequences of climate change

Summing up

Science in the lab, the literature and the media