BIOLOGY 351 – THE BIOLOGY BEHIND THE NEWS

Spring 2017
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, Bob Wright A104

Readings
Textbook – This course does not have a textbook. However, I recommend that you have a biology textbook close at hand, so you can read about some of the biology I will mention. If you already have a biology textbook from a previous course, you can use that. If you don’t have a text, I have several in my office I am not using. You are welcome to borrow one for the term. Alternatively, you could buy one at Subtext or online. The edition does not have to be recent.

Handouts – I will be handing out photocopies of readings in class.

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 10) 25%
Midterm 2 (Friday, March 17) 25% (not cumulative)
Final Exam (April exam period) 50% (cumulative)

The midterms and the final exam will be mixed format.
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 (aspirational)

Introduction
Seeing reason

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

The Human Organism
Concussion and sports
Stem cells
The immune system in fact and in fiction
Drug development and drug testing
Space flight biology
Evolution – its uses and abuses

Environment
Bees in trouble
Biological consequences of climate change