

# **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