

# **BIOLOGY 351 – THE BIOLOGY BEHIND THE NEWS**

**Summer 2020**

**Department of Biology, University of Victoria**

## **Course Description**

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

## **Instructor**

Dr. Greg Beaulieu.

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

## **Office hours**

I will be making Zoom appointments for office hours. I will also be happy to answer questions by email.

## **Prerequisite**

Third year standing.

## **Lectures**

There will be no set lecture times.

Every week, on the CourseSpaces site for Biology 351, I will post new chapters of lecture notes and an associated narrated PowerPoint lecture. The PowerPoint will be converted to an mp4 file, and it will be viewable on the CourseSpaces site through the Kaltura tool. You will not need either PowerPoint or Kaltura on your computer.

You will be able to look at these materials on your own schedule.

## **Readings**

I will also be posting pdfs of readings that will be relevant to the topics as I discuss them.

## **Evaluation**

Online Midterm Exam (Friday, July 31) 40%

Online Final Exam (Friday, August 21) 60% (cumulative)

The midterm and the final exam will be accessible through the Quiz tool on CourseSpaces. Both exams will be open to you on the days listed from 12:00 noon to 11:59 PM.

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

## **Course Topics (aspirational)**

### Introduction

Seeing reason

### Molecules

The chemistry of life, here and elsewhere

Biofuels

DNA markers and DNA fingerprinting

CRISPR

### The Human Organism

The immune system in fact and in fiction

COVID-19

Concussion and sports

### Environment

Biological consequences of climate change