

# **BIOLOGY 400 – History of Biology**

**Online Edition, Spring 2021**

**Department of Biology, University of Victoria**

## **Course Description**

The historical development of the major techniques and ideas of biology, including the significance of the important contributors to biology. The treatment will be part chronological, part topical.

## **Instructor**

Dr. Greg Beaulieu.

Email: gregoryb@uvic.ca. If you send an email, please put "Biology 400" in the message line. I will also have Zoom office hours, and I will be available for Zoom appointments outside my office hours.

## **Prerequisite**

Third year standing.

## **Readings**

I will post pdfs of selected readings on the Brightspace site when they become relevant as we progress through the course.

## **Evaluation and Grading Policy**

Online Midterm 1 (Friday, February 12)	25%
Online Midterm 2 (Friday, March 12)	25% (not cumulative)
Online Final Exam (April final exam period)	50% (cumulative)

The midterms and the final exam will be accessible through the Quiz tool on Brightspace. You can find Quizzes under the Course Tools tab.

All three exams will be open to you from 8:30 AM to 8:30 PM on the exam days; within this time window you will have 2 hours on your personal clock to complete the exam. The exams will be open book. **However, you may not consult any other person, either in the course or not, about the exam while you are writing it.**

The two midterm exams will be all multiple choice.

The final exam will be mixed format. There will be a noncumulative multiple choice section worth half of the exam points; these questions will be concerned with material we have covered since the second midterm. The final exam will also have an essay question that will require a written answer of 500 – 600 words or so; you will be asked to integrate various parts of the entire course in your answer to this question. This essay will be worth the other half of the final exam points.

The final exam is an essential component of the course; if you do not write the final exam, you will receive a grade of N.

You will receive a grade of F if you do not achieve an aggregate score of 50% or better on the three exams.

You do not need to pass every exam to pass the course.

You do not need to pass the final exam to pass the course, but you do need to write it; otherwise your course grade will be N.

If you cannot write one of the midterms or the final exam due to illness or crisis, please get ahold of me as soon as possible at [gregoryb@uvic.ca](mailto:gregoryb@uvic.ca). I can arrange either a deferred writing or a redistribution of your marks.

### **Structure and scheduling of the course**

The university has timetabled this course for Tuesday, Wednesday and Friday, 12:30 – 1:20 PM. However, I will not be delivering the lectures synchronously, and I will not be using these times for lectures. I will be using the Tuesday time slot for an introductory Zoom session on Tuesday, January 12, and the subsequent Tuesday slots will be Zoom office hours.

The course will have these five elements:

*1. Asynchronous Lectures* – The lectures will be delivered in the form of narrated PowerPoint presentations that I will post on the course Brightspace site. You will be able to watch them according to your own schedule. You will not need PowerPoint on your computer to view these. I will convert the PowerPoints to mp4 files that you can watch just by clicking on the title of the lecture.

The plan is to post a new lecture every officially-scheduled lecture day: Tuesday, Wednesday and Friday of each week, beginning on Wednesday, January 13. The lecture videos will be approximately 30-50 minutes in length.

*2. Lecture notes* – I will post skeletal lecture notes in pdf form that will supplement the lecture videos. These lecture notes will have space for you to elaborate and jot down questions.

*3. Readings* – I will post pdfs of the readings as they become relevant to the course material.

*4. Online office hours* – These will take the form of Zoom sessions every Tuesday, from 12:30 – 1:20, beginning on Tuesday, January 19.

If you cannot make the Zoom session on a given week, you can email me directly with your questions or schedule a personal Zoom appointment. My email is [gregoryb@uvic.ca](mailto:gregoryb@uvic.ca). This would be appropriate if you have something pressing or something personal or confidential to discuss.

*5. Online Exams* – see the information about the online exams, above, in page 1.

## **Outline by Week**

### January 11 – 15

Tuesday

Live Zoom introduction to the course, 12:30 – 1:20 PM

Wednesday

Lecture 1 – Introduction

Friday

Lecture 2 – Roots of Biology

### January 18 – 22

Tuesday

Lecture 3 – Ancient World 1

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 4 – Ancient World 2

Friday

Lecture 5 – Ancient World 3

### January 25 – 29

Tuesday

Lecture 6 – Ancient World 4

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 7 – Ancient World 5

Friday

Lecture 8 – Islamic World and Medieval Science 1

Reading: “Genius and Gibberish”

February 1 – 5

Tuesday

Lecture 9 – Islamic World and Medieval Science 2

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 10 – Hidden and Mythical Organisms 1

Friday

Lecture 11 – Hidden and Mythical Organisms 2

February 8 – 12

Tuesday

Lecture 12 – The Human Body 1

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 13 – The Human Body 2

Friday

**MIDTERM 1 – online; open 8:30 AM – 8:30 PM; 2 hours on your personal clock**

February 15 – 19

Reading Break

February 22 – 26

Tuesday

Lecture 14 – The Human Body 3

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 15 – Microscopy

Friday

Lecture 16 – Chemistry 1

March 1 – 5

Tuesday

Lecture 17 – Chemistry 2

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 18 – Describing and Arranging Organisms 1

Friday

Lecture 19 – Describing and Arranging Organisms 2

Reading: “Living and Fossil Elephants”

March 8 – 12

Tuesday

Lecture 20 – Geology 1

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 21 – Geology 2

Friday

**MIDTERM 2 – online; open 8:30 AM – 8:30 PM; 2 hours on your personal clock**

March 15 – 19

Tuesday

Lecture 22 – Evolution before Darwin 1

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 23 – Evolution before Darwin 2

Friday

Lecture 24 – Darwin 1

Reading: “The Professor and the Naturalist”

March 22 – 26

Tuesday

Lecture 25 – Darwin 2

Live Zoom office hour, 12:30 – 1:20 PM

Reading: “Galapagos Archipelago”

Reading: “Kropotkin Was No Crackpot”

Wednesday

Lecture 26 - Cells

Friday

Lecture 27 – Heredity 1

March 29 – April 2

Tuesday

Lecture 28 – Heredity 2

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 29 – Evolution and Genetics Come Together 1

Reading: “One-Way Ticket”

Friday

Good Friday

April 5 – 9

Tuesday

Lecture 30 – Evolution and Genetics Come Together 2

Live Zoom office hour, 12:30 – 1:20 PM

Wednesday

Lecture 31 – The Hereditary Material 1

Friday

Lecture 32 – The Hereditary Material 2

Reading: “Chapter 23 from *The Double Helix*”

April 12 (Monday)

End of term

April 15 – 27

Exam period; includes both Sundays

**Biology 400 Final Exam**

**Multiple Choice part – not cumulative**

**Essay part - cumulative**