

# **BIOLOGY 400 History of Biology**

**Fall 2024**

**Department of Biology, University of Victoria**

## **A. Basic Course Information**

### **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.

**M**

## Learning Outcomes

By the end of this course, you will have learned:

- what kinds of questions that interest historians and the kinds of sources they use
- how the study of life developed into a science, beginning in the ancient world and continuing through the Scientific Revolution and the modern period
- how expanding biological knowledge informed the practice of medicine and the understanding of the human organism
- how older explanatory concepts in biology were dropped in favour of more useful ones
- how different eras and cultures contributed to the development of biology
- how the idea of evolution in the nineteenth century brought together many currents of biology that had been developing since the beginning of the Scientific Revolution
- how the study of evolution and the study of inheritance were unified in the twentieth century

In addition, the Packback part of the course will be useful practice in posing interesting questions and looking for answers. See Part C below.

## Course Topics

- Ø Introduction
- Ø The roots of biology
- Ø Biology in the ancient world
- Ø The Islamic world and medieval Europe
- Ø Hidden and mythical organisms
- Ø The human body: the Scientific Revolution and after
- Ø The early days of microscopy
- Ø Describing and arranging organisms
- Ø Biology and the emerging physical sciences: chemistry
- Ø Biology and the emerging physical sciences: geology
- Ø Evolution before Darwin
- Ø Darwin
- Ø Cells, the units of life
- Ø Heredity
- Ø Evolution and genetics come together
- Ø The hereditary material
- Ø TD Lysenko and Soviet biology

## B. Evaluation

### Components of your course grade

Packback participation

3



medical issue, but you will need a note for any other reason. ~~As for~~ Friday travel plans are not an acceptable reason to miss the final exam.

- To make your deferred status official in the eyes of the university, you must fill [Request for Deferral form](#)
- More general information about types of concessions and accommodations available to UVic students can be found [here](#)
- **A writing of the deferred final exam will be offered to you on Friday, January 3, 2025, at 10:00 AM, in Bob Wright Center B150 (Flury Hall). This constitutes your official notification of time and place.**

## **C. Packback**

### **What is it?**

Packback is an online platform for discussion among students. You will be contacted by the company about signing up.

Since Biology 400 has only third-year standing as a prereq, there are students from many different academic backgrounds registered here. That has always been one of the strengths of the course and one of its pleasures to note that Packback will be able to bring together students with different knowledge, ideas, viewpoints and values.

### **Cost**

The cost is \$9 (CAN).

### **How it works, what you will do, and how you will be assessed**

When you log in to Packback, there will be a button to click (“Packback Tutorial”) to get you started.

### **Packback Deadlines**

The deadline for your one question and three responses every two weeks is Saturday at 11:59 PM, PDT or PST. (Reading break does not count as a week.) The full list of deadlines:

Saturday, September 1, 11:59 PM (PDT) – 1 question, 3 responses

Saturday, September 28, 11:59 PM (PDT) – 1 question, 3 responses

Saturday, October 12, 11:59 PM (PDT) – 1 question, 3 responses

Saturday, October 26, 11:59 PM (PDT) – 1 question, 3 responses

Saturday, November 9, 11:59 PM (PST) – 1 question, 3 responses

Saturday, November 30, 11:59 PM (PST) – 1 question, 3 responses

You must submit your question and responses ~~each~~ before the deadline. Late submissions will not be accepted.

### **Registration**

You can find registration instructions on p10 of this course outline.

### **A few more notes**

*Two*, it commits a logical fallacy, the Genetic Fallacy, evaluating the truth value of a statement according to who says it, or their motives for saying it, instead of the evidence for or against it

- Practice humility. You're not right about everything. Nobody. Maybe the point at issue is one of the things you are wrong about.

Finally, don't be discouraged if some of your questions do not get any responses. I have seen excellent, thought-provoking questions that nobody responded to. Some questions attract more

Wednesday, December 4 Last day of class for first term courses; last day of class for  
Biology 400

**Saturday, December 7 First day of final examinations period**

**Friday, December 20 Last day of final examinations period**

## **E. University Resources, Statements and Policies**

**Club life**



**Academic Integrity**

The University of Victoria and the Department of Biology [academic integrity](#) (including plagiarism) 0.4Tm 06t\* n BT /tEluding

## **Packback**

Participation is a requirement for this course, and the Packback Questions platform will be used for online discussion about class topics. Packback Questions is an online come