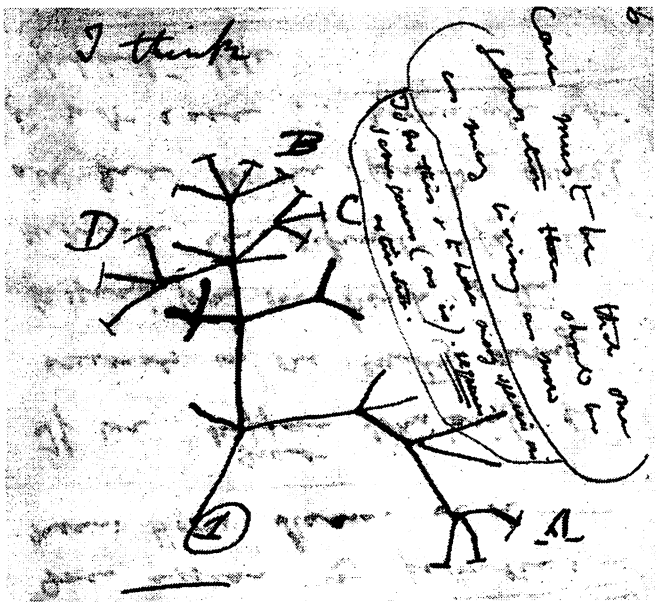

The first cladogram. Image from Charles Darwin's First Notebook on Transmutation of Species in 1837 showing his first iteration of an evolutionary tree (from Wikipedia).

History of Biology

Biology 2310 | Fall 2016

COURSE INFORMATION

Instructor D. Law

Contact info

Office:	OA 3018 (on the Orillia campus)
Email:	dlaw@lakeheadu.ca (preferred contact method)
Phone:	705-330-4008, ext. 2646
Office hour:	via FaceTime (dlaw@lakeheadu.ca) or Skype (dave.law764), Wednesdays 1:00 – 2:00 PM. Otherwise, I am available by appointment via email.

Please use the LU email address above to contact me, not the email within D2L. I will check my email daily Monday to Friday, and will try to respond to your questions as quickly as possible during those days.

Class info

In D2L; check there for the latest course updates and information. Biology 2310 is an asynchronous web course and does not have any "live" content.

Course TA: Cassandra Eckman (cleckman@lakeheadu.ca)

Calendar description (from http://navigator.lakeheadu.ca/~/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=21&topicgroupid=12718)

Biology 2310 History of Biology

- *Description:* Development of fundamental concepts in biology from Antiquity to contemporary times, with emphasis on species and researchers that have progressively expanded human knowledge of the living world.
- *Offering:* web
- *Credit Weight:* 0.5
- *Prerequisite(s):* none
- *Course Classification(s):* Type C: Engineering, Mathematical and Natural Sciences

Textbook

There is no official textbook; I will give you required readings by posting the material online. Course material is derived mainly from 3 books:

1. A Guinea Pig's History of Biology by Jim Endersby (2007) Harvard University Press, Cambridge, MA, ISBN 0-978-674-02713-8 (hardcover); 9780099471240 (paperback) (available from Thunder Bay and Orillia Lakehead libraries on overnight loan).
2. Deep Things out of Darkness: A History of Natural History by John G.T. Anderson (2013) University of California Press, Berkeley, CA, ISBN 0-978-520-27376-4 (hardcover).
3. The Gene: An Intimate History by Siddhartha Mukherjee (2016) Scribner, New York, NY, ISBN 0-978-14767-3350-0 (hardcover).

Learning objectives

At the end of this course, you should be able to:

- Distinguish science-based and non-science-based approaches to understanding the natural world.
- Recognize how biology researchers build on previous knowledge when they conduct experiments to answer questions.
- Know the names and backgrounds of key historical figures in biology.
- Identify the model organisms that have made progress in biological research possible and explain why they are useful for addressing specific biological questions.
- Conduct a respectful, informed discussion about historical biological questions with your peers.

Marking scheme

Component	
A. Discussions	
• Online participation in discussion groups	**20**
B. Tests (all written online)	
• Midterm exam 1	**20**
• Midterm exam 2	**20**
• Final exam	**40**
TOTAL MARKS	**100**

Discussion forums are an important part of online classes, as there is no face-to-face time with your prof or TA as there is in a classroom-based course. My goal with the discussion groups is to demonstrate to you that participating helps you understand the course content, but more importantly deepens your learning experience and sharpens your critical thinking skills. These are my goals… it is my first time delivering an online course so I hope to deliver on this promise.

For you to receive discussion participation marks, you must participate regularly with thoughtful posts. How do you do this? Follow these discussion guidelines (from Debbie Morrison's online learning blog) for some hints:

- Use a subject line that relates to your post; this will help create interest and focus for the discussion.
- Write clearly and with expression. Communicating online requires careful and concise writing, but also allows your personality to come through. Though humour is effective and at times relevant in discussion, be sure to avoid sarcasm, which does not translate well in the online environment.
- Be supportive, considerate and constructive when replying to your classmates. Do not use jargon, slang or inappropriate language. If you disagree with a classmate, please respond in a respectful and tactful manner. Any posts that I or the TA deem inappropriate will be removed from the discussion board.
- Keep your post focused on the topic, relating any class readings and materials from the current module in your post (as applicable).
- Proofread and review your response before hitting the submit button. I suggest composing in Word, then cutting and pasting.
- Participate regularly. Improve your learning by being an active and engaged student. Successful students follow and participate in the assigned discussion throughout the module, logging on at least three times a week while reading and participating in forums as assigned in the module.

Schedule and important dates

Note that the schedule is tentative and subject to change. Beyond week 2, I will update the schedule as it is finalized.

Week 1: Sept. 6-9
Course info
Introduction
What is science?
The scientific method
What is biology?
Its beginnings as natural history

Week 2: Sept. 12-16
Greek influences: biology = medicine
Roman biology
The decline of natural history in the Middle Ages

Week 3: Sept. 19-23

Week 4: Sept. 26-30
Midterm test #1: write from 12:01 pm Thurs. Sept. 29 to 11:59 am Fri. Sept. 30. Covers weeks 1-3.

Week 5: Oct. 3-7

Oct. 10-14: Fall reading week break

Week 6: Oct. 17-21

Week 7: Oct. 24-28

Week 8: Oct. 31-Nov. 4
Midterm test #2: write from 12:01 pm Thurs. Nov. 3 to 11:59 am Fri. Nov. 4. Covers weeks 4-7.

Week 9: Nov. 7-11
(Final day for F term class withdrawal is Mon. Nov. 7)

Week 10: Nov. 14-18

Week 11: Nov. 21-25

Week 12: Nov. 28-Dec. 2

Material placed on reserve

One copy of A Guinea Pig's Guide to the History of Biology is on overnight reserve at the library on each campus. Any readings I assign will either be freely available online or I will post them on the course D2L site.

Midterm exams (dates indicated above)

These cover the lectures as indicated above. They are written at any time during a one-day period and are designed to be 1 h long. Other details will be given in class.

Final exam (date TBA)

Covers material between last test and the end of the course. However, any material that students had difficulty answering on the midterm test may be included on the final. I will let you know what this material is in advance.

Statement on academic dishonesty

The full version of Lakehead University's policy on academic dishonesty is available here: http://vpacademic.lakeheadu.ca/?display=page&pageid=46. This policy makes up part of the Code of Student Behaviour and Disciplinary Procedures (https://www.lakeheadu.ca/faculty-and-staff/policies/student-related/code-of-student-behaviour-and-disciplinary-procedures). All students in this course should read this policy and become familiar with it.

In summary, the penalty for plagiarism or cheating on any part of this or any other course is zero for the work where the student is caught. Serious or repeated plagiarism, including cheating on an examination or test, will result in a mark of zero for the course and may result in expulsion from the University.

For the purposes of this course, there are in particular two places where cheating may occur:
(a) using written or electronic notes or conferring with another person in a test or examination, and
(b) participating in a discussion forum under any name other than your own.

Academic dishonesty for any of these areas will result in a mark of **zero** for the work concerned. Rest assured that the course instructors will take **every precaution** to ensure that potential cheaters are caught and subjected to the appropriate penalty.