

# **BIOL-226 – SYLLABUS**

**Dr. Justin Touchon, Biology Department  
Spring 2023**

## **IMPORTANT DETAILS**

**Where:**

**OH 266 (lecture)**

**OH 256 (lab)**

**When:**

**TR 9:00–10:15 (lecture)**

**R/F 1:30–5:30**

**Office hours:**

**T 10:15–12:00**

**Contact:**

**[jutouchon@vassar.edu](mailto:jutouchon@vassar.edu)**

**Lab interns:**

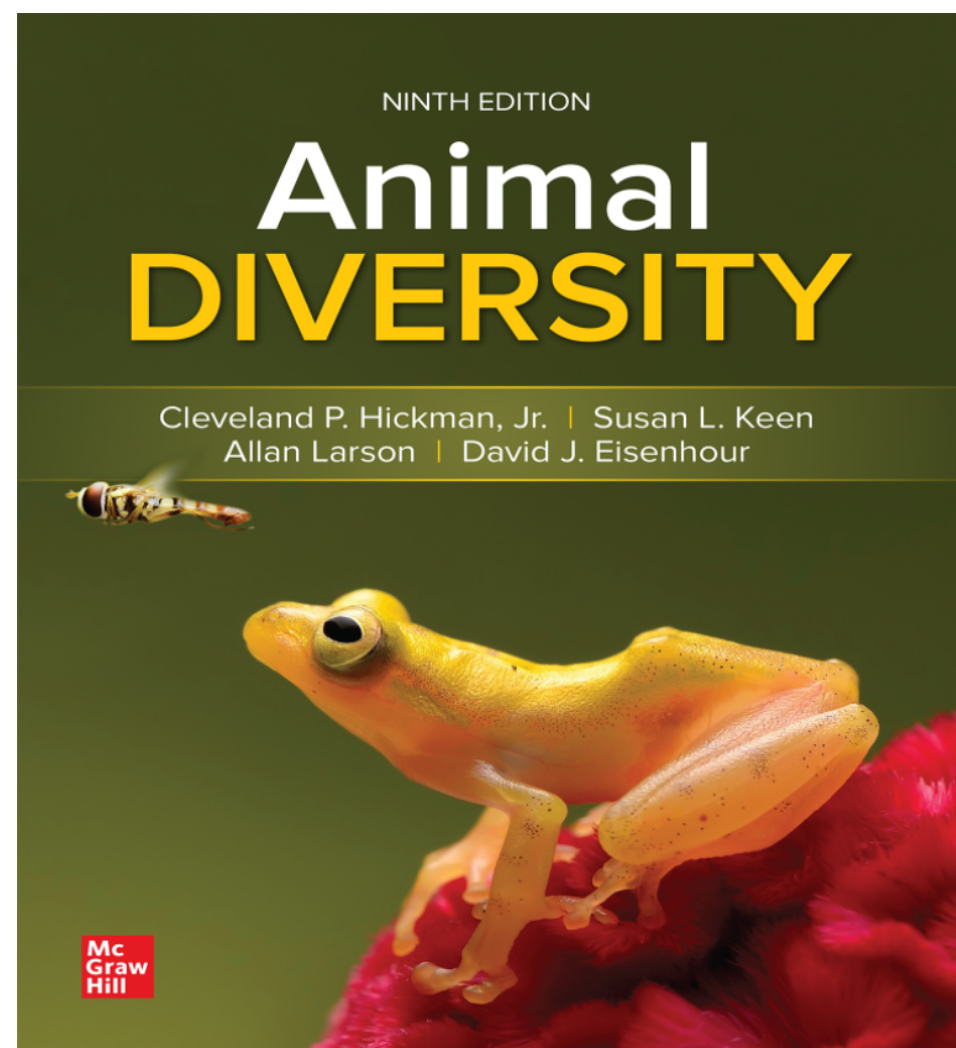
**R: Kali vom Eigen**

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**F: Liza Cantacuzene**

**([ecantacuzene@vassar.edu](mailto:ecantacuzene@vassar.edu))**

## **WHAT YOU NEED**



**Note: I respond to email primarily  
between 9am and 5pm, Monday–Friday.  
Don't expect a response on the weekend.**

# What is this course about?

The animal kingdom is *incredible*. Think about the diversity of animal forms, from simple sponges to complex primates! To fully understand such diversity, we will discuss how animal forms have evolved in response to the environment and how their ability to evolve is a consequence of their own evolutionary history.

A focus of this course will be on the ecological role of different animals; how they function in their environments, what effects they have on humans, and how all of this impacts their evolution. The first half of the semester will be spent covering the invertebrates (i.e. animals without a backbone) and after spring break we will cover the vertebrates.

In addition to traditional lectures, we will also have occasional discussions of assigned readings (led in part by you!). By the end of the semester you will appreciate not only the tremendous differences across the animal kingdom, but more importantly, the amazing similarities!

## WHAT WILL YOU DO THIS SEMESTER?

- Learn to appreciate the breadth of animal diversity and evolution
- Learn and improve laboratory techniques such as microscopy, dissection, illustration and behavioral observations
- Read and discuss articles focused on particular aspects of animal diversity and evolution
- Lead discussion with your peers in a supportive, collaborative learning environment
- Have fun!

# Other important information!

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- Lectures will not be recorded or broadcast on Zoom. If you are sick or are quarantined, you will not be able to watch the lecture. *Don't worry, you'll be fine.*
  - I will post a pdf of all lectures on Moodle after each lecture has been completed. It is your responsibility to meet with me to discuss any questions you have. *Don't worry, this is how it was pre-COVID and it was fine!*
  - **Attendance:** If you feel sick, please email me and stay home. That said, absences are only excused if I receive an official note from the Dean of Studies office or Health Services.
  - Please let me know if you have allergies to anything we might encounter in laboratory (e.g., latex, shellfish, etc.). In addition, let me know as soon as possible anything that you might feel pertinent to your performance in the course.
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In laboratory, you will observe and sometimes handle live animals, noting their form and their behavior. You will dissect preserved animals and compare external and internal anatomy among animal groups. A large part of your grade will be based on your laboratory notebook, in which you should keep detailed descriptions and drawings of the animals. Dissections make some students uncomfortable for a variety of reasons. Although I respect students' opinions and welcome discussion during office hours, dissections are necessary and are required for this course.

# Schedule

Date	Lecture topic	Quiz/Discussion	Reading	Lab topic
1/19/23	Intro to Animal Evolution		Ch. 1 & 4	Lab 1. Introduction
1/24/23	Multicellularity & Animal Origins		Ch. 3 & 6	Lab 2. Animal Architecture + Porifera
1/26/23	Cnidaria & Ctenophora		Ch. 7	
1/31/23	Lophotrochozoa		Ch. 8	Lab 3. Cnidaria + Lophotrochozoa
2/2/23	Lophotrochozoa	<b>Take-home quiz 1 due</b>	Ch. 9 & 10	
2/7/23	Mollusca		Ch. 11	Lab 4. Mollusca
2/9/23	Mollusca	<i>Morse 1991</i>	Ch. 11	
2/14/23	Ecdysozoa		Ch. 12	Lab 5. Arthropoda I
2/16/23	Arthropoda	<b>Take-home quiz 2 due</b>	Ch. 13	
2/21/23	Arthropoda	<i>Erwin et al 1997</i>	Ch. 13	Lab 6. Arthropoda II
2/23/23	Arthropoda		Ch. 13	
2/28/23	Arthropoda	<i>Seeley et al 2006</i>	Ch.13	<b>Lab Practical I</b>
3/2/23	<b>Midterm Exam</b>			
~~~~~ Spring Break ~~~~~				
3/21/23	Echinoderms			Lab 7. Echinodermata
3/23/23	Early Chordates/Early Fishes		Ch. 15	
3/28/23	Fish		Ch. 15	Lab 8. Basal Chordates
3/30/23	Fish		Ch. 16	
4/4/23	Transition to land	<i>Shubin 2009 Ch. 1-3</i>	Ch. 16	Lab 9. Vertebrates I
4/6/23	Amphibians	<b>Take-home quiz 3 due</b>	Ch. 17	
4/11/23	Reptiles		Ch. 17	Lab 10. Vertebrates II
4/13/23	Reptiles		Ch. 18	
4/18/23	Dinosaurs and birds	<i>Ostrom 1979</i>	Ch. 18	<b>Lab Practical II</b>
4/20/23	Birds	<b>Take-home quiz 4 due</b>	Ch. 18	
4/25/23	Birds	<i>Grant and Grant 2002</i>	Ch. 19	Course evaluations and presentations
4/27/23	Mammals		Ch. 19	
5/2/23	Mammals	<i>Marshall 1998</i>	Ch. 20	

NOTE: It is very important that you read discussion articles before class. Your participation in discussion and in-class group assignments is very important.

## How are you graded?

Take home quizzes (4 total, 4% each)	16%
Lab Notebook	14%
Lab Practical Exams (2 total, 10% each)	20%
Midterm Exam	15%
Final Exam (cumulative)	20%
Leading discussion	5%
Final lab presentation	5%
Participation (attendance, discussion, in-class work)	5%

## Grading scale

Percentage Points	Letter Grade
100–93.34	A
93.33–90.00	A-
89.99–86.67	B+
86.66–83.34	B
83.33–80.00	B-
79.99–76.67	C+
76.66–73.34	C
73.33–70.00	C-
69.99–66.67	D+
66.66–60.00	D
59.99 and below	F

## Late assignments

It always beneficial to turn in assignments or quizzes, even late. **There is a 5% penalty per day for late assignments**, with a maximum penalty of 50% off.

## Accommodations

Academic accommodations are available for students with disabilities who are registered with the Office of Accessibility and Educational Opportunity.

## Gender pronouns

If you prefer to use gender neutral or other alternative pronouns, please feel free to let me know. Similarly, if you prefer to be called by a name other than what is given to me by the college, just let me know.

## Integrity

Discussion of assignments with your classmates is encouraged. However, your assignments should be in your own and should elaborate on your own ideas. Plagiarism is a very serious offense and I take it very seriously.