

WINTER 2019

BIO 94 LEC B/D

Organisms to Ecosystems

Information

Dr. Nancy Aguilar-Roca

Email: nmaguila@uci.edu

Phone: (949) 824-3632

Office hour: Tues, 11a-12p

Place TBA

[Calendar](#) for one-on-one appts.

Lecture

Lec B: Mon, Wed, Fri,
2:00-2:50pm, BS3 1200

Lec D: Mon, Wed, Fri,
3:00-3:50pm, ALP 1300

Website

Lec B: <https://canvas.eee.uci.edu/courses/13978>

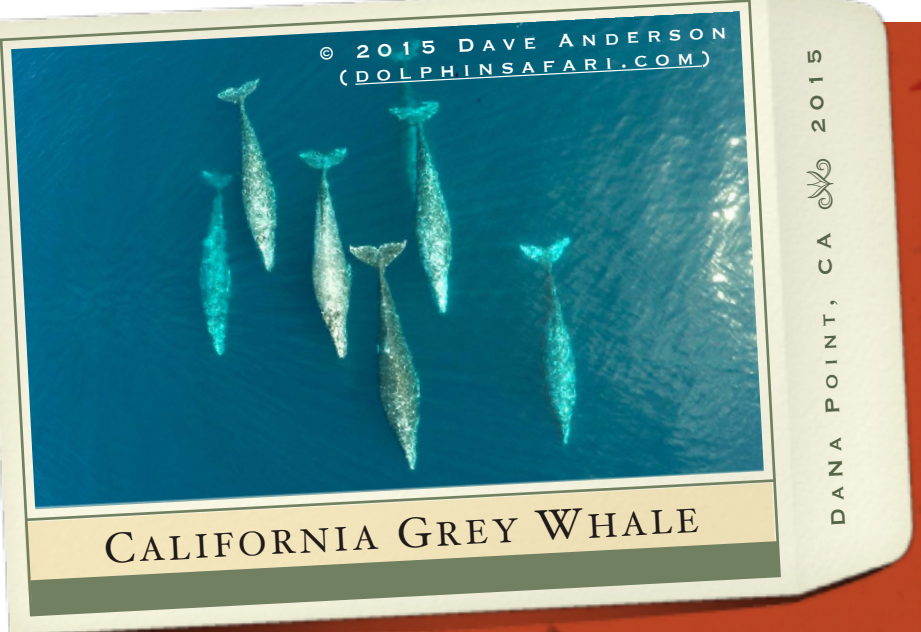
Lec D: <https://canvas.eee.uci.edu/courses/13979>

Discussion Board

You can post questions about the syllabus and course materials on the Canvas Discussion page

Administrative TA

Lauren Pandori, lmcquinn@uci.edu
Please email Lauren with questions about Learning Catalytics, Mastering Biology and other administrative issues.



How do we know that whales share a common ancestor with modern day hippos? Where do Grey Whales fit into the food chain? What affects their migration along the California coast? These are the kinds of questions that we'll tackle.

WELCOME TO BIO 94!

Why are ecology and evolutionary biology relevant to our lives? This course will emphasize broad concepts that you can apply to your future Bio Sci core courses. By the end of this course, you should be able to

- Look at an item in the news and [critically evaluate its validity](#)
- Propose an evolutionary hypothesis
- Explain biotic and abiotic factors that affect the environment
- Design an experiment to test a hypothesis

Freeman Biological Sciences (5th edition) & Mastering Biology (custom versions) are required.

Your purchase options for the textbook are detailed on the next page. DO NOT purchase your text through Amazon or other discount retailer. You will not have access to the correct version of Mastering Biology.

Learning Catalytics: We will be using this feature of Mastering Biology during class. Bring a tablet, smart phone or laptop.

Textbook

Below are two options for the textbook and Modified Mastering Biology. After you purchase the text and/or access code, instructions for how to register are on the class webpage. **DO NOT purchase your text through Amazon or other discount retailer.** You will not have access to the correct version of Mastering Biology. You will be able to access the site on Jan. 4, 2019.

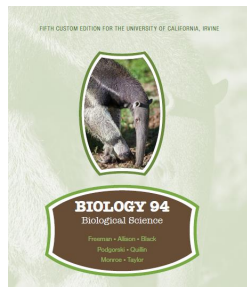
Choose ONE of the following options
(Course ID for your section will be posted on the course webpage)



BIO SCI 94 & H94 – COURSE MATERIALS CHOOSE ONLY ONE:

OPTION ONE:

PHYSICAL TEXTBOOK & MASTERING PACKAGE
\$106.05



INCLUDES ACCESS TO  Pearson | Mastering | Biology

Where: at campus bookstore

ISBN: 9781323167564

Includes:

- Custom bound textbook
- Modified Mastering Biology Code (6-month access with eText)

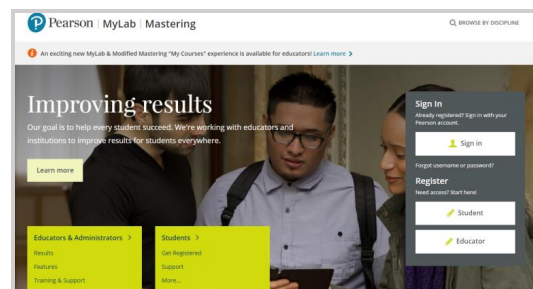
Note: you will need Modified Mastering Biology in order to complete your homework assignments.

Best value if:

You would like a printed textbook which can be a great reference during classes, & throughout your academic & professional career!

OPTION TWO:

ELECTRONIC TEXTBOOK & MASTERING PACKAGE
\$63.60



Where: www.pearsonmylabandmastering.com

Includes:

- 6-month access to Modified Mastering Biology with eText

Note: you will need Modified Mastering Biology in order to complete your homework assignments.

Best value if:

You don't need a printed copy of your textbook, and you can purchase your course materials directly online with a credit card.

DO NOT purchase your text through Amazon or a discount textbook vendor. You will not have the correct access code for the custom UCI Mastering Biology site.

You will be able to access MasteringBiology material for this course starting Jan. 4, 2019.

This version of the Freeman textbook is a substantial revision from previous editions, so only the 5th edition will be usable this class.

CLASS POLICIES

Attendance

You must attend the lecture section for which you are registered. You will not receive credit for Learning Catalytics if you are not attending the correct section. I do my best to keep the same content in both sections, but occasionally something goes wrong, requiring a change in one section, but not the other.

Academic Honesty

There is zero tolerance for cheating in this class (including logging into Learning Catalytics for someone else). In the event of cheating, the appropriate campus-wide policies will be followed, including contacting the appropriate deans. Refer to the [student code of conduct](#) for details. Academic dishonesty or cheating is defined as an intentional act of fraud in which a student seeks to claim credit for the work or efforts of another. This includes assisting other students in acts of dishonesty or coercing students into acts of dishonesty, whether it is on writing, lab work, or exams. If you are not sure if something is cheating or not, ask!

Accommodations for Students

I am happy to provide accommodations for students with learning or physical disabilities. Please identify yourself to me during the first week of class so that we may discuss ways that will enhance your learning experience. All such discussions will be fully confidential unless you state otherwise. All requests for alternate exam accommodations will be coordinated through the [UCI Disability Services Center](#).

Athletes must provide letters from their coaches about away games as soon as possible. [Go 'Eaters!](#)

Personal Conduct

You are expected to conduct yourselves in a manner consistent with [UCI Principles of Community](#)

Respect - We understand that respect is the cornerstone of human interaction.

Intellectual curiosity - We are committed to learning, teaching, creativity and research.

Integrity - We tell the truth and strive to earn the trust of those around us.

Commitment - We always give our best effort.

Empathy - We act with compassion and sensitivity.

Appreciation - We appreciate different opinions and points of view.

Fun - We enjoy our lives to the fullest.

If you observe misconduct, please bring it to the immediate attention of any instructor. You will remain anonymous.

Incompletes

Students in good standing (having minimally a "C" in the class) who cannot complete the course because of a documented emergency (such as an illness or accident verified with a doctor's note or police report) will be given an Incomplete and will need to make-up the material when the course is offered again. An Incomplete grade is NOT given simply because a student is not doing well in the course.

You'll never guess [where](#) this bobcat was photographed!



Go outside!

Much of what we'll cover in this course is visible all around you. I will organize a couple of optional field trips so you can experience the diversity of plants and animals near campus. There will be sign-up sheets after week 1.

Freshwater Marsh

San Joaquin Freshwater Marsh

Located within walking distance of campus ([at the Arboretum](#)), the director of the marsh, Dr. Peter Bowler, has generously agreed to offer tours of the marsh throughout the quarter (weather permitting).



Marine Habitats

Corona del Mar & Laguna Beach

We have some beautiful tidepools within a 20 minute drive of campus. Dates and times will depend on the tides (and my personal schedule).

California grunion runs

If you've never been to a [grunion run](#), there's a possibility that you'll get to see one during the last 2 weeks of the quarter. Mother Nature will dictate if it happens or not.



Coastal Chaparral

Crystal Cove State Park

To see chaparral you only have to walk to the edge of campus, but for a better look, a 10 minute drive takes you to a [trailhead with spectacular views](#) and free access to Crystal Cove State Park. Dates and times for a nature walk will depend on my schedule (and the weather).

Graded Activities

Online Pre-class Quizzes The goal of the quizzes is to expose you to lesson material before class so we can focus more on problems and applications. Quizzes will open 24hrs before class and close at 11am on the day of class. Each quiz will be worth 2 points and each correct answer will be worth between 0.1 and 0.5 point each. The lowest 5 quiz scores will be dropped.

Learning Catalytics There will be one point per Lesson for participating in Learning Catalytics. The lowest 5 scores will be dropped beginning on Wed Jan 9 (Lesson 2). Learning Catalytics questions are used to help determine if there are any misconceptions, if anything is confusing and have a little bit of fun.

Discussion Activities for the 2 points associated with each Discussion will be assigned at the discretion of your individual instructor. The activities may include oral presentations, short quizzes, worksheets and data analysis. Your two lowest scores will be dropped.

Make-up sections: If you miss your section, you may NOT just attend another one for points, but you may ask permission to attend another one for the learning experience. Remember that you are allowed to drop your 2 lowest scores. Exceptions will be made for documented reasons such as ER visits, accidents with a police report, lunch with the Chancellor etc.

Midterms: There will be 3 in-class midterms that will cover only the material from the preceding 2 or 3 weeks. The questions will be in the style of the questions for the final exam. Make-up midterms will NOT be given. If you miss a midterm for a documented reason (e.g. ER visit, accident with police report), the average of your other

midterms will replace the missing score. If you're still paying attention to the syllabus, send Dr. Aguilar-Roca an email with a picture of your favorite dinosaur. She'll be impressed!

Final Exam The comprehensive final exam will be primarily multiple choice questions with a few short answer questions.

It is expected that you will make every effort to take your final exam at the scheduled time. However, requests for make-up final exams will be considered under the following guidelines:

- A student may be granted a make-up if there is a **verifiable** emergency that prevents the student from taking the final examination at the scheduled time. Such emergencies include, but are not limited to, serious illness, death of immediate family member, or serious accident.
- A student may be granted a make-up if they have a disability registered with the Disability Services Center.
- In all cases, the petition for make-up final exam must be presented with verifiable evidence.
- Vacation plans do not constitute a legitimate excuse.

Meet the real life Peter the Anteater!

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Peter the Giant Anteater (*Myrmecophaga tridactyla*) arrived at the [Santa Ana Zoo](#) in 2009 and became a father in 2011. A single anteater may eat up to 30,000 insects per day. Giant Anteaters are considered vulnerable because of habitat loss.

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Letter Grades Scores will be rounded to the nearest tenth of a point and assigned letter grades as follows:

- >96.0% = A+; >93.0% = A; >90.0% = A-
- >86.0% = B+; >83.0% = B; >80.0% = B-
- >76.0% = C+; >73.0% = C; >70.0% = C-
- >66.0% = D+; >63.0% = D; >60.0% = D-
- < 60.0% = F

If you earn 89.94%, that will be rounded to 89.9% and it will be a B+. If you earn 89.95%, that will be rounded to 90% and it will be an A-. If the overall class average at the end of the quarter is below 75.0% I will consider a curve.

Activity	Notes	Points Possible*	% of Grade
Midterm #1	Material from Lessons 1 - 6	30	11.7
Midterm #2	Material from Lessons 7 - 13	30	11.7
Midterm #3	Material from Lessons 14 - 19	30	11.7
Final Exam	Cumulative, with emphasis on Lessons 20 - 25	90	35
Learning Catalytics	24 lectures (beginning Wed Jan 9) +0.5 point for <50% participation +1 point for ≥50% participation Drop 5 lowest scores	19	7.4
Discussion	10 Discussions, 2 points each Drop 2 lowest Discussion scores	16	6.2
Online Quizzes	25 Quizzes, 2 points each Drop 5 lowest online quiz scores	40	15.6
Instructor Evaluations	One for lecture; one for discussion	2	0.8
Total		257	

* The final points available may change during the quarter due to unforeseen circumstances.

Students at Arizona State University resorted to doing [this](#) to improve their grades!

Contacting Dr. Aguilar-Roca

I will be available during posted office hours and by appointment. I will do my best to respond to your emails within 24 hours. (For general administrative and content questions, you'll likely get a faster answer from the Discussion board on Canvas).

I enjoy hearing from students and I will be even happier to hear from you if you observe the following guidelines:

- Use a relevant subject line.
- Start emails with "Dear Dr. Aguilar-Roca,"
- Assume that I'm too old to understand IM and text-messaging abbreviations.
- Proofread. Auto-corrected biological terms are hysterically funny, but they hinder efficient communication.
- Sign with the name you prefer to be called.

I try to set aside time every week for one-on-one appointments with students (for everything from help with writing to biology concepts to life in general). [Just put yourself on my calendar](#)

My Commitment to the Whole Student

Inclusive Classroom: I will uphold UCI's commitment to ensuring equality and valuing diversity. UCI recognizes that our individual differences can deepen our understanding of one another and the world around us, rather than divide us. In this class, people of all ethnicities, genders and gender identities, religions, ages, sexual orientations, disabilities, socioeconomic backgrounds, regions, and nationalities are strongly encouraged to share their rich array of perspectives and experiences. If you have a name and/or set of pronouns that differ from those that appear on the roster, please let me know!

See also [Diversity and Awareness at UCI](#) and [UCI LGBT Resource Center](#)

In an ideal world, science would be objective. However, much of science is subjective and is historically built on a small subset of privileged voices. I acknowledge that it is possible that there may be both overt and covert biases in the material due to the lens with which it was written, even though the material is primarily of a scientific nature. Integrating a diverse set of experiences is important for a more comprehensive understanding of science.

Please let me know ways to improve the effectiveness of the course for you personally, or for other students or

student groups. Your suggestions are encouraged and appreciated.

Equal Access for All Students: Janet Napolitano, the UC president, publicly supports all students regardless of immigration status. She has also made a commitment to support and protect students and their families. If you feel that you need any kind of assistance as you are affected by either your immigration status or a loved one (family member, parents, friends, partner) feel free to contact the [UCI DREAM Center](#).

Basic Needs Security: Any student who faces challenges securing sufficient food or housing and believes this may affect their performance in the course is urged to contact the [Dean of Students](#) for support. Other resources available at UCI:

- [Student Outreach and Retention Center \(SOAR\)](#)
- [SOAR Basic Needs Hub & Food Pantry](#)

Furthermore, please notify the professor if you are comfortable doing so, so that she can assist with securing resources.

A safe space. [UCI CARE](#) provides free and confidential support services to members of the UCI community impacted by sexual assault, relationship abuse, family violence and/or stalking.

Feeling stressed out?

Over the course of the quarter, you may experience a range of challenges that interfere with your learning and daily activities, such as problems with friend, family, and/or significant other; substance use; concerns about personal adequacy; feeling overwhelmed; or feeling sad or anxious without knowing why. There is nothing wrong with consulting a [professional counselor](#). Some other strategies to consider:

One of the best things you can do is find a study partner. Two heads are better than one!



Give mindful meditation a try. Free intro videos from [UCI](#) and [UCLA](#)



Go for a walk outside! This is what [exercise does to your brain](#)



Grab a friend and go play at the [ARC](#). Did you know that you can also get a [relaxing massage](#) at the ARC?

Lecture schedule

Specific pages will be posted on the class webpage

DATE	LESSON #	CHAPTER
Week 1 Mon Jan 7	1	Chapter 1: Introduction
Wed Jan 9	2	Chapter 25: Evolution by Natural Selection
Fri Jan 11	3	Chapter 26: Evolutionary Processes
Week 2 Mon Jan 14	4	Chapter 26: Evolutionary Processes
Wed Jan 16	5	Chapter 27: Speciation
Fri Jan 18	6	Chapter 28: Phylogenies and the History of Life
Week 3 Mon Jan 21		Holiday
Wed Jan 23		Midterm #1 (Lessons 1 - 6)
Fri Jan 25	7	Chapter 28: Phylogenies and the History of Life
Week 4 Mon Jan 28	8	Chapter 29: Bacteria and Archaea
Wed Jan 30	9	Chapter 29: Bacteria and Archaea
Fri Feb 1	10	Chapter 30: Protists
Week 5 Mon Feb 4	11	Chapter 31: Green Algae and Land Plants
Wed Feb 6	12	Chapter 31: Green Algae and Land Plants
Fri Feb 8	13	Chapter 32: Fungi
Week 6 Mon Feb 11		Midterm #2 (Lessons 7 - 13)
Wed Feb 13	14	Chapter 33: An Introduction to Animals
Fri Feb 15	15	Chapter 34: Protostome Animals
Week 7 Mon Feb 18		Holiday
Wed Feb 20	16	Chapter 34: Protostome Animals
Fri Feb 22	17	Chapter 34: Protostome Animals

DATE		LESSON #	CHAPTER
Week 8	Mon Feb 25	18	Chapter 35: Deuterostome Animals
	Wed Feb 27	19	Chapter 35: Deuterostome Animals
	Fri Mar 1		Midterm #3 (Lessons 14 - 19)
Week 9	Mon Mar 4	20	Chapter 52: An Introduction to Ecology
	Wed Mar 6	21	Chapter 53: Behavioral Ecology
	Fri Mar 8	22	Chapter 54: Population Ecology
Week 10	Mon Mar 11	23	Chapter 55: Community Ecology
	Wed Mar 13	24	Chapter 56: Ecosystems and Global Ecology
	Fri Mar 15	25	Chapter 57: Biodiversity and Conservation Biology
Final	Lec B: Fri Mar 22, 1:30-2:30 pm Lec D: Mon Mar 18, 4:00-6:00pm		Comprehensive, but with an emphasis on lectures 20-25 There will be a short answer section.