

SUMMER 2022 EVOLUTION

Bio E109

In this course we will examine the history and mechanisms of evolutionary change. Topics include molecular evolution, natural and sexual selection, adaptation, speciation, biogeography, and macroevolution among others. Students should leave the course being able to:

1. Realize the potential and limits of evolutionary change
2. Understand the processes that lead to evolutionary change
3. Describe the major approaches to studying evolution and their pros and cons
4. Understand how evolution leads to biodiversity
5. Relate evolutionary biology to pertinent issues
6. Critically read and evaluate primary literature
7. Gain experience with the scientific method and posing/testing hypotheses
8. Develop general critical thinking and communication skills

Detailed learning objectives will be provided at the start of every new topic.

Course Website: <https://canvas.ucsc.edu/>

If you are enrolled in the course, you should have automatically been added the Canvas course site. If you cannot access the course site, please email your instructor.

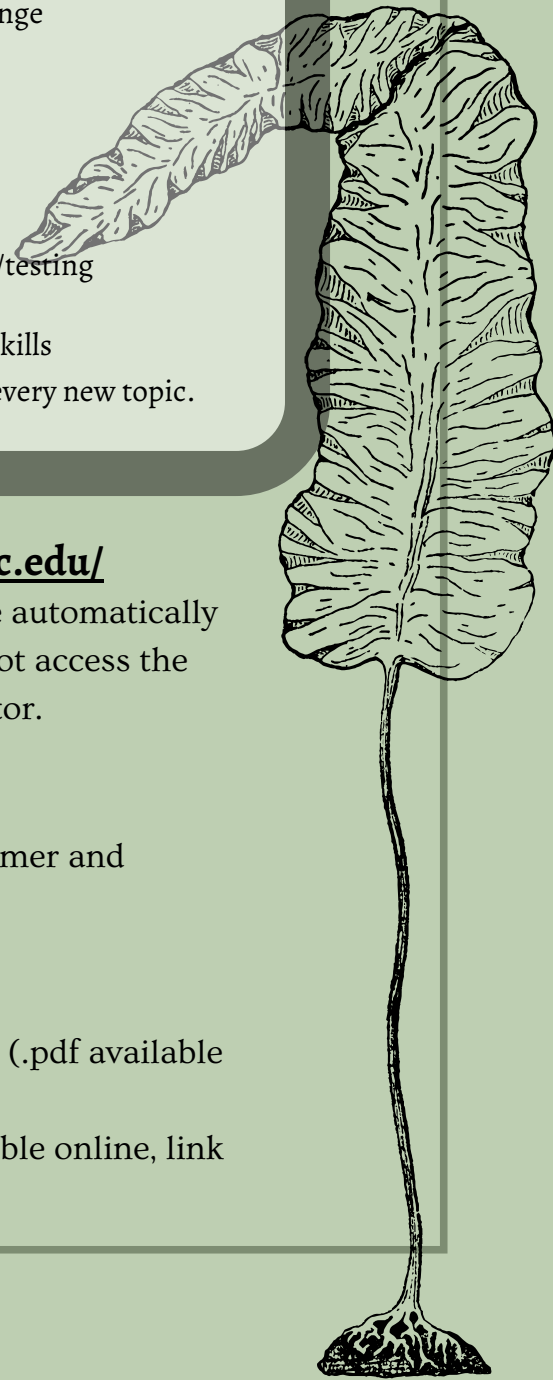
Optional Texts:

Evolution: making sense of life by Carl Zimmer and Douglas J. Emlen

Recommended Texts:

Origin of species (1st edition!) by Charles Darwin (.pdf available online, link on Canvas)

The Selfish Gene by Richard Dawkins (.pdf available online, link on Canvas)



YOUR INSTRUCTORS

Professor

Dr. Van Wishingrad
Email: vwishingrad@ucsc.edu
Office Hours: Friday 12-1 pm
& by appointment



Teaching Assistants

Allyson Sawkins
Email: asawkins@ucsc.edu
Office Hours: Monday
12-2 pm & by appointment

Megan Molinari
Email: mmolina9@ucsc.edu
Office Hours: Wednesday
9-11 am & by appointment

Contacting Us:

I think we can all agree that there are just too many emails in the world. I know my inbox feels this way. So, we will be conducting discussions on Piazza- The system is designed to get you help fast and efficiently from classmates, the TAs, and me! Rather than emailing questions, please post your questions on the Piazza forum. If you prefer, you can also send private messages to the teaching staff or mark your posts to be shared anonymously. If you have a question that is not related to the subject matter or is something answered by this syllabus, you can of course email me directly, but PLEASE put "Bioe 109" in the subject line of your emails if you do so. If you have any problems using the Piazza platform, email team@piazza.com.

I will enroll everyone who is signed up for the class by July 21 in the 109 Piazza page, but if you don't get an email confirming your enrollment on the platform, the link to sign up for Piazza is below:

<https://piazza.com/ucsc/summer2022/bioe109>

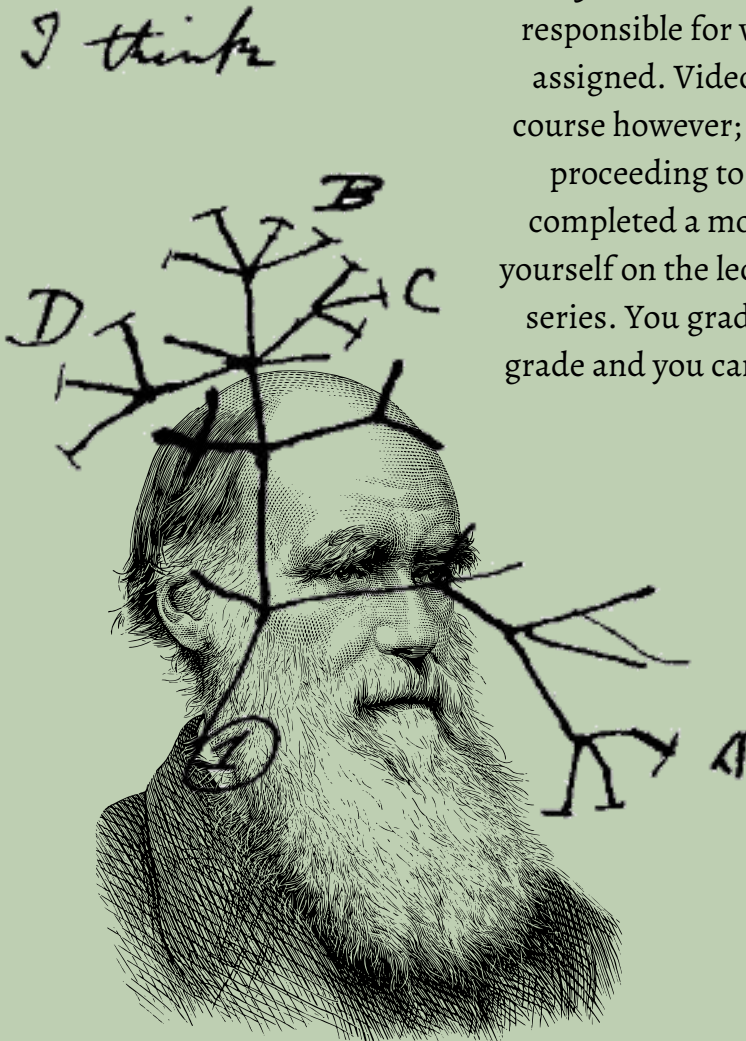
HOW THE CLASS IS RUN

Weekly Virtual Office Hours:

Even though this is an online course, I feel that most of the content is best taught utilizing different perspectives, so in addition to the recorded lectures you will be viewing, the TA's and I will have a separate virtual office hour for one-on-one or small group help. Students are enthusiastically encouraged to attend the lectures and virtual office hours of your instructor and TAs. Virtual office hours will be conducted via Zoom. You will find a link to our meeting rooms on Canvas. You are welcome to come with specific questions or to just "talk shop." If you have a private question/issue to discuss, please contact us ahead of time to make an appointment.

Online lectures:

Lectures are organized into modules, which are composed of several 15-20 minute video lectures (see schedule below). You are responsible for viewing these lectures during the week they are assigned. Video lectures will remain available throughout the course however; you **MUST COMPLETE EACH MODULE** before proceeding to the next module in the series. After you have completed a module, there will be a short quiz to help you test yourself on the lecture material and unlock the next module in the series. Your grade on these quizzes will not count towards your grade and you can retake these quizzes as many times as you like.



Reading assignments:

Readings for each week will typically include one scientific paper from the primary literature plus supplemental chapter(s) from one of two textbooks. Primary literature readings and textbook chapters will be available on the course website (see below for schedule). The primary literature readings will be discussed during discussion forums and will be included in the quizzes.

Weekly Lecture Quizzes (in lieu of a midterm)

There will be three graded quizzes at the end of weeks 1-3 instead of having a single midterm. These are separate from, and in addition to, the module quizzes that unlock the next module in the series. These will be conducted through Canvas.

They are open note/book but are NOT group assignments. Be sure to carefully read the instructions when taking these quizzes. There are no make-ups and the lowest quiz will not be dropped. Unless otherwise specified, quizzes for the week will be closed by SUNDAY night at 11:59pm.

Discussion “sections” (Forums and Quizzes)

These will not be like traditional sections that you may be familiar with but rather will take place in the form of asynchronous discussion forums (meaning that you can contribute to them over time) on Canvas and take the quizzes at the end of the week. These forums will be composed of guiding questions relating to the recent lectures or readings from the primary literature. Quizzes will test your understanding of the material from the reading and forums. Participation in these discussion forums will be counted towards your participation grade while the quiz results will count towards your overall discussion grade.

Be sure to carefully read the instructions when taking these quizzes. There are no make-ups and the lowest quiz will not be dropped. Unless otherwise specified, quizzes for the week will be closed by SUNDAY night at 11:59pm.

FINAL EXAM:

Exams for this course will be taken through Canvas like the online quizzes. You will be allowed a calculator and scratch paper, however, the final exam is NOT open book. You will NOT be allowed to search the web, look at your notes or book.

Grading:

30% Weekly Quizzes (3x 10%)

35% Final Exam

30% Discussion Boards/Quizzes

5% Course Participation

Late Policy

*50% points deducted per day
after grading*



Academic integrity:

Cheating will not be tolerated. Cheating during tests will result in a zero and may result in a failing grade in the class. By enrolling in the university, students are automatically agreeing to abide by policies, including those on academic misconduct. Academic integrity and scholarship are core values that should guide our conduct and decisions as members of the UCSC community. Plagiarism and cheating contradict these values, and so are very serious academic offenses. Penalties can include a failing grade in an assignment or in the course, or suspension or expulsion from the university. Students are expected to familiarize themselves with and follow citation practices (<http://nettrail.ucsc.edu/ethics/index.html>) and the university's Rules of Conduct regarding student conduct and discipline:
<http://www2.ucsc.edu/judicial/handbook.shtml>.

DRC accommodations:

UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student with a disability who requires accommodations to achieve equal access in this course, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to me via email, preferably within the first two weeks of the quarter. At this time, I would also like us to discuss ways we can ensure your full participation in the course. I encourage all students who may benefit from learning more about DRC services to contact DRC by phone at 831-459-2089 or by email at drc@ucsc.edu

Important Deadlines:

Add: Thursday, July 28

Drop: Monday, Aug. 1 (tuition reversed)

Withdraw: Friday, Aug. 14 (no tuition refund)

Change Grade Option: Sunday, Aug. 21

Final exam: Friday, Aug 26

Grades Due: Thursday, Sept 1

A Note on Canvas:

Like most websites, Canvas tracks your activity, including which pages you've visited, when, and for how long. All submissions (assignments, quizzes, discussion forums) are time-stamped, which means that your instructor can see exactly when you turn your work in.

IMPORTANT NOTE: As this is a summer session class, everything is VERY fast-paced. We fit everything required of the normal 10-week offering into half the time! Therefore, to succeed in this class will require sustained effort and participation. Cramming interspersed with periods of inactivity will not work!

