

California Natural History IB 11 (Cali Nat Hist) Fall 2020

Three (3) semester credits

Course Description

An introduction to the biomes, plants, and animals of California. The lectures will introduce natural history as the foundation of the sciences, with an overview of geology, paleontology, historical biology, botany, zoology, ecosystem ecology, and conservation biology. The field labs will include activities on the UC Berkeley campus and around the Bay Area. The course is open to all students without prerequisite and will provide an introduction to the life sciences and a foundation for advanced study in biology and field biology.

Prerequisites and Requirements

There are no course prerequisites for IB 11, and this course satisfies a breadth requirement in Biological Science at UCB.

Course Objectives

After successfully completing this course, you will be able to identify the common plants and animals of the Bay Area, and you will understand the geological and historical context in which the California biota evolved and assembled. The course may stand alone as an introduction to biology, or it may serve as a gateway to advanced study in ecology, evolutionary biology, or public policy. We will work together to facilitate your independent approach to the study of nature, and you will learn to immerse yourself in the investigation of organisms in your local ecosystem, within the broad context of Earth history and human history.

By the end of the semester, you will have the ability to:

- Understand the relationship between history, climate, and species diversity in California
- Identify the common organisms in your community with colloquial and scientific names
- Produce sophisticated observations of organismal behavior and ecosystem processes

- Create detailed natural history observations with georeferenced photos and videos
- Interpret contemporary biological research through a reading of scientific research articles and science journalism
- Enjoy local ecosystems and museum collections as sources of study and inspiration

Instructor Contact Information

Course Instructor

Alan Shabel, Ph.D. | shabel@berkeley.edu

Department of Integrative Biology, UC Berkeley

Graduate Student Instructor (GSI)

- Name of GSI, email address, office hours.

The graduate student instructor (GSI) will interact with the whole class online via Zoom, and the GSI will be available each week for office hours. Links to the Zoom rooms will be available on the course website and bCourses. Your GSI is a primary point of contact in the course, but the majority of the logistical questions can be addressed via Piazza on bCourses, and we will collaborate with you to make Piazza a productive question-and-answer forum (see below for more info).

Email

You are welcome to email the instructors at any time—and you can expect a timely response—but please be respectful of your instructor's availability, particularly on weekends and holidays. You can access course email within the Learning Management System by clicking on the Inbox link in bCourses, or you can have your course email forwarded to your personal account. Please compose emails with care, using the language of letter-writing rather than the shorthand of text messaging. Our communications are most efficient when they are brief and clear. You have the full support of your instructors, let us know how you are doing and what you need!

Piazza & Top Hat Discussion Forums

We rely on Piazza to communicate with one another about course structure and logistics, and we use Top Hat to discuss conceptual content and course subject matter. Have a question on a due date, or are you seeking to share a ride to a field trip site? Post to Piazza. Got a question on the difference between a California Scrub Jay and a Steller's Jay? Confused by a concept in the assigned reading? Let's work that out in Top Hat. The instructors will monitor Piazza and Top Hat, and you will be encouraged to respond to the questions of your classmates. This will generate a sort of FAQ page for the course (Piazza) and a cumulative source of natural history knowledge and inspiration (Top Hat).

Course Materials and Sections

There is no required textbook for this course, but there will be reading material assigned through Top Hat, including news stories and journal articles, as well as links to online audio and video files. You will have flexibility in your choice of readings and activities, and you may pursue your personal interests within the broad field of natural history. You will receive an email invitation to access Top Hat before the start of class. If you are interested in the study of birds, you will need a pair of binoculars, and the instructors can provide advice on your options. If you are interested in plants and insects, a magnifying glass or jeweler's loupe is invaluable. You will need a field notebook and/or smartphone for your handwritten notes and observations.

Discussion section

Each of you has been assigned to a discussion section. You can see which section you are in by navigating to the "Section" column within the "People" page on bCourses. During most weeks, your hour-long discussion session will be included in your field activity. During those weeks when there is not a field activity, the discussion section will meet on campus.

Grading Summary

In order to succeed in this course, you will need to (1) attend the lectures and field trips, (2) complete the online readings and watch the videos, and (3) perform well on the midterm and final exams. Your final course grade will be based on the lecture and reading assessments in Top Hat (20%), the reports from the field (30%), the midterm (20%), and the final (30%).

Lecture and Reading Assignments (20%)

The lecture and reading assignments will be submitted in Top Hat. Each lecture will correspond to a Top Hat chapter and will include a set of linked online resources. You will choose one online resource per lecture to study. Embedded in the Top Hat chapters will be multiple choice and short answer questions to help you stay on track. These items will contribute 18% to your overall grade, and your responses will not be visible to your classmates.

In addition, each lecture chapter will also contain group discussions in which we ask you to write reflectively and critically on the discussion topic. These open discussion responses will be visible to the whole class, but they will be anonymous. Your posts and responses in these anonymous discussions will contribute 2% to your overall grade. The anonymous discussion forums represent a unique opportunity for you to exchange views with your classmates, share experiences and resources, and solidify your understanding of the course material.

Activities in the Field (30%)

The field activities are a fundamental part of the California Natural History course, and they will include time outdoors as well as in museums. Each of the five field activities will require four hours to complete. Each activity must include a set of observations that document your learning and progress, and each activity will require a short summary report that describes your achievement (one to three paragraphs). Technology can play a central role in these activities. If you focus on plants, you may use botanical apps such as Calflora Observer or Jepson eFlora; if you focus on animals, you can use iNaturalist or eBird. You will have a lot of flexibility to choose your own adventure in this course. We will explain everything!

Midterm (20%) and Final Exam (30%)

The midterm and final exams will cover all of the lecture material up to the time of the exam, and the final is cumulative. The exams will include a variety of question types, including multiple choice, fill in the blank, short answer, and short essay. The exams will be held during a regular class session.

In general, we will strive to reduce the pressure and stress of grades in this course to create an experience that is fun, memorable, and educational. We expect you to make a strong effort to succeed in this course as you make the effort to succeed in life. Your concerted effort to become a scientific naturalist will produce desired results and a good grade, and you will have our full support throughout the semester.

General Course Policies

Promptness

All of the assignments have specific due dates, and you will receive reminders of each due date as a courtesy. For the online assignments, you are encouraged not to procrastinate. You will not receive full credit on assignments submitted after the due date, and "technical difficulties" are not a valid excuse for late submissions. Points will be deducted from your assignment for each late day.

Honor Code

The student community at UC Berkeley has adopted the following Honor Code: "As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others." We expect you to observe and uphold the UCB honor code as a member of this course. Indeed, natural history itself is marked by the honest and accurate documentation of natural phenomena, and the very practice of natural history includes a tacit honor code. In natural history, "respect for others" includes non-human creatures; in the field, you are expected to treat the natural environment with care, especially in parklands and other protected areas.

Collaboration and Independence

It is possible to work in this course collaboratively and working with others is recommended when outdoors. However, all graded assignments are to be completed independently, and the materials that you submit must be the result of your own independent work. To copy text or ideas from another source without reference is plagiarism, and any form of cheating or plagiarism will result in a failing grade for that assignment, as well as further disciplinary action. For additional information on plagiarism and how to avoid it, please explore the [UC Berkeley Library Citation Page, Plagiarism Section](#) and the [GSI Guide for Preventing Plagiarism](#).

Incomplete Course Grade

Students who have completed a substantial portion of the course but who are unable to complete the final assignments and final exam may request an Incomplete. The request for an Incomplete must be submitted to the primary instructor. Please provide verifiable documentation (medical, legal) for the seriousness of your extenuating circumstances. According to university policy, Incomplete grades for Fall classes must be made up by the start of the following Fall semester.

Students with Disabilities

If you require course accommodations due to a physical, emotional, or learning disability, please first contact [UC Berkeley's DSP Program](#). Once your accommodations are established with the DSP Program, please notify an instructor of the accommodations that you have received, and we will make a good plan with you.