Integrative Biology 102/102L *Spring 2020*
Introduction to California Plant Life

Instructors: Eric Harris (eric.harris@berkeley.edu) Office hours:
Letty Brown (TBD) Office hours:

Lectures:	Tu, Th 1:00 PM – 1:59 PM	120 Wheeler
Labs:	Tu, Th 9:00 AM – 11:59 AM	3030 VLSB
	Tu, Th 2:00 PM – 4:59 PM	3030 VLSB

Saturday all day field trips: two mandatory field trips in April

Course description: Integrative Biology 102 and 102L (note: both must be taken concurrently). Prerequisites: Biology 1B or permission of Instructor. The course covers the relationship of the main California plant groups and plant associations to climate, soils, vegetation, geological and recent history, and conservation. The laboratory reviews California floristics focusing on identification and taxonomy of the main plant genera and major plant families, as well as the use of keys to identify native and introduced vascular plants (pteridophytes, gymnosperms, angiosperms) of the state.

Required textbook:

- Mooney, H., and E. Zavaleta, Editors. 2016. *Ecosystems of California.* Berkeley: University of California Press. (electronic/PDF version of text is available free through the UC Library online catalog)
- Additional readings as posted on bCourses

Recommended:

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, Editors. 2012. *The Jepson Manual: Vascular Plants of California, 2ed.* Berkeley: University of California Press.
- Ornduff, R., P. M. Faber, and T. Keeler-Wolf. 2003. Introduction to California Plant Life. Berkeley: University of California Press.

Additional Reading:

- Barbour, M.G., T. Keeler-Wolf, and A.A. Schoenherr, Editors. 2007. *Terrestrial Vegetation of California, 3ed.* Berkeley: University of California Press.
- Judd, W.S., C.S. Campbell, E.A. Kellogg, P.F. Stevens and M.J. Donoghue. 2015. *Plant Systematics: A Phylogenetic Approach, 4ed*. Sunderland, Massachusetts: Sinauer Associates, Inc.
- Schoenherr, A.A. 2017. *A Natural History of California, 2ed*. Berkeley: University of California Press.
- Simpson, M.G. 2010. *Plant Systematics.* San Francisco: Elsevier Academic Press.

Online Resources:
Course website on https://bcourses.berkeley.edu/

Jepson Flora Project (eds.) 2020. Jepson eFlora, http://ucjeps.berkeley.edu/eflora/

Calphoto: https://calphotos.berkeley.edu Photos of many of the plant species found in California. This will be very helpful in studying for sight identification for laboratory exams.

Course mechanics and policies:

LECTURE SCHEDULE: The schedule is an approximate outline for the course. The schedule may change according to class needs or unforeseen circumstances. Notifications of any changes to the schedule will be announced in advance and posted on the course website.

COURSE WEBSITE: (http://bcourses.berkeley.edu) Attention to the course website is mandatory. Class announcements, lecture outlines and/or slides, labs, review sheets, and supplemental materials will be posted on this website. Printed copies of course material will typically not be available in class.

ATTENDANCE: Lecture attendance is essential but it is understood that students may need to miss a session due to extenuating circumstances. Therefore, you are permitted to miss three sessions without penalty. However, you are responsible for any material that is missed. If four or more lecture sessions are missed for any reason, you may be given a no pass grade at the instructors' discretion. Similarly, attendance at lab sessions is critical and all lab sessions are mandatory. Students may only miss a lab with a serious excuse (death in the family, major illness with drs note).

FIELD TRIPS: Six mandatory local field trips will be held within the normally scheduled three-hour lab period to:

- UC Botanical Garden
- Huckleberry Preserve
- Jewel Lake
- El Cerrito Hillside
- Tilden Botanical Garden
- Skyline Serpentine Prairie

You must provide your own transportation to these field trips. Please carpool—your GSI may arrange to go as a class by caravan from campus. These field trips are scheduled in advance and will be held even during rain. If the weather is very, *very* bad, a field trip may be rescheduled.

In addition, the laboratory component of the course will involve two, mandatory, all-day (8:00 AM sharp to ~7:30 PM) field trips in April to:

- Mount Diablo (Contra Costa Co.) **Saturday April 4, 2020**
- Point Reyes Peninsula (Marin Co.) **Saturday April 25, 2020**

The course will provide transportation for these field trips. You must bring lunch, water, and appropriate field clothing. More details to follow.

CANCELLED CLASSES: If class is cancelled for any reason, scheduled activities will take place during the next class meeting. Announcements about cancelled lectures will appear on the course website by 5PM the day before class or as early as possible.

ACADEMIC HONESTY: Plagiarism—the representation of another person's work as your own—may result in a no pass grade for an assignment, quiz, exam, or the course at the discretion of your instructor. All work, including exams, quizzes, and written assignments, must be in your own words and not those of your classmates, the internet, or any material produced by someone else.

ASSIGNMENT DUE DATES: All assignments (e.g., lab notebooks) are due at the beginning of class on the due date. If an assignment is received after this time, it will be marked down 10%. If an assignment is received more than 24 hours after its due date, it will be accepted at our discretion and marked down 50%.

WITHDRAWAL AND INCOMPLETE POLICY: If you are having difficulties completing the course, please come and talk with us about your options. Students must follow the established UC Berkeley procedure to withdraw from a course. It is your responsibility to know UC Berkeley policies regarding withdrawal and incomplete grades. For details: http://registrar.berkeley.edu

Student Evaluation:

QUIZZES: Quizzes will be administered in lecture and in lab during the semester and will be announced in advance. Make-ups for quizzes will not be available.

EXAMS: Two lecture exams and two lab practicals will be administered over the course of the term as indicated on the schedule. The lecture exams will be administered once. The lab practical exams will each be administered twice - once in each lab period. In circumstances directly affecting you or your dependents *and subject to prior, written approval*, we will consider scheduling alternatives. Due to the time required to collect and setup material for lab exams, **there can be no make-up of the lab practical exams**.

LAB NOTEBOOK: You will be required to keep a laboratory notebook this semester. The purpose of the lab notebook is to provide a venue for focusing on each plant specimen in detail, which will help you learn to "see" the morphological features of the plant. In addition, the lab notebook will serve as a valuable study aid for quizzes and lab practical exams that will complement any photographs, written notes, etc. We understand that drawing ability will vary between students, and therefore the artistic quality of the drawings is not considered in grading. Lab notebooks will be checked mid-semester and at the end of the course. For full credit on the lab notebook, the following features must be present for each specimen we study in the lab this semester, arranged by lab:

- Label indicating the genus name and family;
- Drawing must fill one half to one whole sheet of the lab notebook;
- Drawing of plant specimen showing at a minimum a stem, leaves, and flower/inflorescence. (You may have to make several small drawings to show each of these features.); and,
- Notes pertaining to diagnostic or useful morphological features.

Course Grading Summary:

Lecture Grade

Quizzes (4) 20%	40pts
Midterm exam 40%	80pts
Final Exam 40%	80pts

Lab Grade

Lab notebook 20%	40pts
Quizzes 30%	60pts
Lab practical #1 25%	50pts
Lab practical #2 25%	50pts