



Sonoma Ecology Center

2023 UC California Naturalist Course Syllabus for Educators

Welcome to the Fall 2023 Sugarloaf Ridge State Park California Naturalist Program facilitated by Sonoma Ecology Center and Sponsored by California State Parks Foundation Climate Resiliency Initiative.

The California Naturalist Program seeks to foster a committed corps of naturalists and community scientists trained and ready to take an active role in natural resource conservation, education, and restoration. The California Naturalist course will introduce you to the wonders of our local ecology and engage you in the stewardship of California's natural communities. The course will combine a science curriculum with guest lecturers, field trips and project-based learning to immerse you in the natural world of inland Sonoma County.

Project Learning Tree Educator Integration:

This course includes all the requirements for the participant to use Project Learning Tree when the participant chooses the PLT Capstone Template Option. Participants to this course can opt-in to receive the PLT certificate and activity guide by simply choosing to complete a PLT focused capstone project (a template is provided for those choosing this route)

Please contact Tony@sonomaecologycenter.org if you have any problems with the registration process.

Contact Information: Tony Passantino email: Tony@sonomaecologycenter.org

Lead Instructor: Tony Passantino, Education Program Manager—BA in Geography/Environmental Studies, UCLA

Tony Passantino has extensive knowledge of watershed dynamics and the local ecology of Sugarloaf Ridge State Park through his coursework in Environmental Studies at UCLA, and significant experience in leading place-based education curricula since 2012 at Sugarloaf Ridge State Park. He is certified through Project WET, Project WILD and Project Learning Tree, an Aldo Leopold Foundation graduate and Backcountry Leadership instructor through Bay Area Wilderness Training. He has worked on watershed education and conservation for the internationally focused nonprofit, Tahoe-Baikal Institute, and has worked for AmeriCorps at Lake Tahoe on sediment erosion and best management practices. Tony has a talent for leading groups in field-based learning projects which he brings to his work with students on field trips, summer camps, and classroom programs. He is an avid trail runner and backpacker. He is recently returned from a 3 month sabbatical, guiding backpacking trips through the Western Highlands of Guatemala. At Sonoma Ecology Center, he leads an education team providing free lessons to Sonoma Valley elementary school classes, oversees the Teen EnviroLeaders program and serves as the Sugarloaf Ridge State Park Education Coordinator.

Directions to Robert Ferguson Observatory

2605 Adobe Canyon Road, Kenwood, CA 95452-9065

Sugarloaf Park (707)833-5712 Robert Ferguson Observatory (707) 833-6979

From Highway 12 east of Santa Rosa, turn on Adobe Canyon Road toward Sugarloaf Ridge State Park. Follow the road up the canyon. From the Park's entrance kiosk, proceed straight up the road, following the signs to the observatory. Please drive slowly—hikers and animals abound!

Just past the horse corrals, you will come to a green gate. Drive past the gate, if it's not open then park in the gravel area between the corrals and the green gate, then walk past the gate up the road a short distance to the observatory.

What to Wear: Warm layers you don't mind getting dirty, gloves and hats. Wool socks and sturdy shoes are helpful for the morning field trips.

Course Description:

California Naturalist Program for Teachers will focus on Climate and Wildfire Resiliency through a naturalist lens. The course is designed to equip educators with the expertise to inspire their students to become active participants in the stewardship of California's natural communities. This course will provide a deep exploration of the wonders of California's local ecology, with an emphasis on understanding the intricate connections between climate change, wildfire resiliency, and the natural history of the Sonoma Valley. Through a combination of scientific inquiry, guest lectures from experts, immersive field trips, and project-based learning, participants will gain the skills necessary to effectively communicate and interpret natural resource information, while applying their knowledge to address local and global environmental issues.

Course Objectives:

By the end of this teacher training course, participants will:

- Understand the essence of being a naturalist and its relevance to environmental education.
- Comprehend the abiotic, biotic, and cultural factors that shape California and the Sonoma Valley's natural history and ecology, with a specific focus on human impacts and wildfire ecology.
- Demonstrate proficiency in making and recording natural history observations using field notebooks and digital platforms such as iNaturalist.org.
- Effectively communicate and interpret natural resource information to engage students in environmental stewardship
- Apply their knowledge of Sonoma Valley ecosystems to address local and global environmental issues, climate change and strategies for building resilient communities.

Components of the Course:

Class & Readings

The class will be held in a hybrid format with alternating Wednesday nights via Zoom and Saturday morning in person lectures that precede the field trips.

In preparation for lectures, all assigned readings and corresponding homework assignments from the *California Naturalist Handbook* should be completed before each class where they appear on the syllabus. Evening classes will be a mix of activities with guest lecturers, classroom lecture, discussion, and a small snack break.

Field Trips

Each field trip will run from approximately 8:30am -1:30pm, with the exception of the Dawn Chorus, which will run from 6:30am - 10:30am and will include an optional overnight camping trip.

NOTE There is a mandatory California Naturalist Meeting on Friday, November 11th to present on Capstone projects.

What to bring on a Field Trip:

- Sturdy walking shoes
- Field Journal
- Dress in layers (cold in the morning but heats up in the afternoon)
- Shade hat
- Sunscreen
- Water bottle
- Cell phone for iNaturalist Program
- Lunch and snacks
- Daypack
- Personal medicine
- Hiking Poles (optional)
- Binoculars (optional, recommend)
- Field guides (optional)

Graduation Day

Graduation/Capstone day will be on **FRIDAY, Nov 11, 5:00pm - 8:00pm** in person at the Sugarloaf Ridge State Park Group Campground.

Field Notebooks

All participants are required to keep a field notebook during the course. Field notebooks may be checked by the instructor periodically during the class or at the end. We will be using these notebooks during class, on field trips and hopefully on your own time. Keeping a field notebook is one of the best ways of fostering continued learning and getting to know a place intimately. Do not worry about getting anything fancy; a simple blank or lined notebook/journal will suffice.

iNaturalist

Over the course of the California Naturalist class, each participant will be responsible for registering for an iNaturalist account (<http://www.inaturalist.org/>). We will go over the

iNaturalist web tool on the first day of class, but you are encouraged to download the free app “iNaturalist” on your smartphone ahead of time.

Capstone Project

Participants are required to complete a volunteer service project in one of four areas: Stewardship, Education/Interpretation, Community Science, or Program Support. The Capstone Project provides an opportunity for participants to integrate the in-class material with an applied work project that is done in conjunction with a local natural resource agency or organization. Participants are encouraged to work in teams when appropriate, and in the final class will deliver individual or group presentations on the projects. Presentations will be 5 minutes long per person (so 15 minutes for a 3 person group). The instructor will provide a Capstone Project proposal form, list of potential project ideas, and feedback as necessary. Participants who would like to propose a Capstone Project that is not on the list will have an opportunity to do so.

Attendance

Participants must attend all evening classes. If an evening class is missed, the participant will be expected to complete make-up activities on their own time at the direction of the instructor. All lectures have been recorded through 2021 and are available as make-up material. Please consult your instructor if you are going to miss a class for access to the video content. You are HIGHLY encouraged to attend our in-person trips as they contain the most pertinent information but options for independent field trips are available if you must miss a field trip day.

Homework

The only homework is to complete the chapter reading that is assigned for each class meeting (check the class schedule below), based on the topic to be covered that day. Participants are expected to read the chapters assigned for that day before class meeting times, so that the materials are more relevant as they are presented.

Volunteer management system (VMS):

Participants will be provided an online account to track their volunteer hours, including hours spent on their Capstone Project. Tracking volunteer hours is an essential way to prove the need and impact of a program like the California Naturalist Program.

Project Learning Tree Educator Requirements:

Participants to this course have the option of completing the requirements to become a Project Learning Tree educator. Instead of the traditional 6 hour PLT workshop, the participants will be exposed to PLT activities that have been integrated into the course and complete a special PLT capstone project that emphasizes individual planning on how they will use PLT after the course.

Other Information

Eating during class is allowed. Each individual will be responsible for their own food and drink.

Required Items:

1. *The California Naturalist Handbook* by Greg de Nevers, Deborah Stanger Edelman and Adina Merenlender
2. *A field notebook for nature observations and drawings, pencil(s).*
3. *Suggested but Not Required: hand lens (10x), binoculars, camera*

Recommended Supplemental Reading:

1. *Secrets of the Oak Woodlands: Plants and Animals Among California's*, Kate Marianchild Press: 2015
2. *The Laws Guide to Nature Drawing and Journaling, Laws*, Heyday Press, 2016
3. *Laws Pocket Guide Set to San Francisco Bay Area, Laws*, Heyday Press, 2014
4. *An Island called California*, Bakker, E., University of California Press: 1984
5. *A Natural History of California*, Schoenherr, A.A., University of California Press: 1992
6. *Introduction to California Plant Life (California Natural History Guides, 69)*, Ornduff et al., UC Press: 2003
7. *Trees and Shrubs of California (Calif. Natural History Guides 62)*, Stuart, Sawyer, UC Press: 2001
California Insects, Powell and Hogue, University of California Press: 1980
8. *Mammals of California (California Natural History Guides, 66)*, Jameson and Peters, UC Press: 2004
9. *The Sibley Field Guide to Birds of Western North America*, Sibley, D.A., Knopf Publishing: 2003

Class Schedule:

The fall course will be conducted in a hybrid format, combining Zoom lectures on Wednesday evenings with in-person lectures and field trips on alternating Saturdays. The Saturday sessions will commence with a thematic chapter lecture, followed by a field trip in the latter half of the morning.

Evening Classes(Wednesdays): 6:00pm - 8:30pm

Saturday Field Trip/Lectures: 8:30am - 1:30pm (except on Nov 11: 6:30am - 11:30am)

Capstone Presentations: 5:00pm - 10:00pm (Friday, Nov 10th)

Please be aware that the schedule is subject to change, and any adjustments will be communicated well in advance. For a detailed week-by-week calendar, please refer to the information provided below.

Sept 27(6:00-8:30): CA Natural Resources, Communication, and Journaling; Nuts and Bolts of the Program *Guest speaker:* Tony Passantino, Education Program Manager & Desi Harpe, Park Educator and Wappo Tribal Member

Reading: Chapter 1 California Natural History & Role of Naturalists

Oct 7(8:30-1:30pm): Citizen Science and Interpretation Lecture & Field trip @ Sugarloaf

Guest speakers: Tony Passantino, Education Program Manager & Dan Levitis, former Community Science Director and iNaturalist Guru

Reading: Chapter 8, Citizen Science

Oct 11(6:00-8:30): Soil Management, Biochar & Climate

Guest speaker: Peter Hurst-Integrated Land Stewardship & Biochar Expert

Reading: Chapter 2 Geology, Climate and Soils

Oct 21(8:30-1:30pm): Field Trip- Sugarloaf Ridge State Park, Watersheds and Water Conservation

Guest speaker: Wendy Hayes, Research Project Manager, Sonoma Ecology Center

Oct 25(6:00-8:30): Animals

Guest speakers: David Herlocker, Retired Naturalist for Marin Open Space

Nov 4(8:30-1:30): Post-Fire Plant and Animal Ecology Fieldtrip at Sugarloaf Ridge State Park

Guest speaker: David Herlocker, Retired Naturalist Marin Open Space District

Reading: Chapter 4 Plants

Nov 8(6:00-8:30): Forest and Fuels Management

Guest speaker: Jason Wells, Forester- Sonoma Resource Conservation District

Reading: Chapter 5 Forest and Woodland resources

Nov 10(5:00-10:00pm): Capstone Presentations & Graduation Night Potluck

Capstone presentations potluck night with free campout options available for any participants that would like to stay overnight!

Nov 11(6:30am - 11:30am): Dawn Chorus Field Trip and Climate Lecture - Sugarloaf Park

Early morning Dawn Chorus followed by Breakfast talk with Bernie Krause/Jack Hines on Global Environmental Challenges.

Reading: Chapter 7 Energy and Global Environmental Issue