

Coastal North San Diego County CA Naturalist class syllabus 2024

Course overview: Welcome to the California Naturalist certification program, one of two programs developed by the UC Environmental Stewards program! The program seeks to foster a committed corps of volunteer naturalists and citizen scientists trained and ready to take an active role in local natural resource conservation, restoration, and environmental education. This course will introduce you to the wonders of California's ecology and engage you in the stewardship of our natural environment. In particular, we'll focus on the unique nature of chaparral and coastal sage scrub which we trust you'll come to love as much as we do. Our area is also home to a number of coastal lagoons from Buena Vista in the north to San Elijo in the south part of our region.

This science-based class includes guest speakers, discussions, hands-on activities, field trips and project-based learning to immerse you into the world of coastal sage scrub and chaparral. Participants earn the UC California Naturalist certificate for attending lectures and field trips, maintaining a field notebook, utilizing the iNaturalist app, and completing a Stewardship project. The class will provide hands-on instruction and exposure to real world environmental projects designed to inspire adults to become active citizen scientists and enhance their personal connection with the natural world.

Lead Instructors: Paige DeCino and Karen Merrill (Preserve Calavera).

Fee: The cost for this course is \$260. The fee is refundable (minus a \$10 processing fee) up to three weeks before the first class and non-refundable thereafter. There are a limited number of partial scholarships based upon need on a first-come basis.

Student outcomes:

By the end of this course, participants will be able to:

- understand what it means to be a naturalist.
- understand the abiotic, biotic and cultural factors that make up the unique natural history and ecology of California and, in particular its southern bioregion.
- demonstrate skills in making and recording natural history observations in a field journal and on iNaturalist.
- demonstrate skills in communicating and interpreting natural resource information.
- apply knowledge of the California ecosystem to local and global environmental issues.

Meetings: All classes will be held at the Buena Vista Nature Center (2202 S Coast Hwy, Oceanside, CA 92054) on Tuesday evenings from 5:30-8:30 pm starting January 9, 2024 and ending March 12. The four mandatory Saturday field trips (Jan. 13, Jan. 27, Feb. 10, and Feb. 24) will be held at different reserves throughout the region, generally in the morning to early afternoon. Two shorter optional field trips for tracking and birding will be on Jan. 21 and March 9.

Required Items:

- *The [California Naturalist Handbook](#)* by Greg de Nevers, Deborah Stanger Edelman, and Adina Merenlender (see link for discount information).
- Field notebook/composition book
- Smartphone or camera/laptop/tablet for use with iNaturalist
- Pencils
- Binoculars (suggested)
- Headlamp/flashlight

COURSE COMPONENTS:

Reading and Homework

In preparation for lectures, all assigned readings from *The California Naturalist Handbook* should be completed before arriving to each class session. A series of questions for you to complete as you read each chapter will be emailed to you before the start of the course. Participants are also expected to be ready for class activities by reviewing any lab/activity instructions beforehand.

Naturalist Field Notebook/Journal:

All participants are required to keep a field notebook during the course. Instructors will check field notebooks periodically during the class or at the end. We will be using these during class, on field trips, and hopefully on your own time. Keeping a detailed field notebook is one of the best ways of recording observations for future reflection and for fostering continued learning and development as an experienced naturalist. Field journals versus notebooks (difference to be discussed in class) are optional. Journals will be checked once or twice during the class.

iNaturalist

Over the course of the California Naturalist class, each participant will be responsible for registering for an iNaturalist account (<http://www.inaturalist.org>) and adding at least 2 observations to the CNSDC iNat project. Our ongoing iNaturalist project is entitled: "Plants and animals in coastal north San Diego county". This project will ask you to join.

Participatory Science class project:

Santa Margarita Ecological Reserve eDNA project.

Stewardship Project:

Certification also requires that each participant plan and complete a Stewardship Project. We will provide examples and guidance in developing your project. No previous experience is required. This project must fall into one of the following six areas: Conservation/Restoration, Education/Interpretation, Participatory Science, Program Support, Community Resilience and Adaptation, or Environmental and Climate Justice. The Stewardship project provides an opportunity for participants to integrate the in-class material with an applied work project that is done in conjunction with a natural resource agency or organization and is considered the beginning of your community-based work. Consider a possible topic in advance and check with us as to its acceptability. Group projects are highly recommended.

Participants may work individually or in teams to design and implement their Stewardship Project. You must submit your project by week 4 for instructor approval; a Stewardship Project Proposal form will be provided. Further details on the presentation will be provided in class.

During the final day of the course, students will give a brief presentation about their projects to their peers. In order to graduate, you must record at least 8 hours on the volunteer portal for your Stewardship project.

Attendance:

One excused absence is allowable with the understanding that this absence will be made up in an approved manner. Please note that, while we understand unexpected demands sometimes arise, it is very hard to substitute a make-up activity that can provide both the depth of information and experience gained in the scheduled session. Be sure to check in when you come to class.

Volunteer Service and Volunteer Management System (VMS):

After completing the California Naturalist training program, participants are expected to complete 40 hours of volunteer service relating to California's natural or environmental cultural history (conservation/restoration, education/interpretation, participatory science, community resilience and adaptation, environmental and climate justice or program support) by year's end. Hours spent planning, developing and completing the Stewardship Project count

toward this 40-hour requirement. In order to become certified we will check that your hours spent completing your capstone project have been recorded on the Cal Nat VMS. We will provide information on local opportunities and students are encouraged to participate in and conduct activities with agencies within their own communities.

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

UC Credits

Participants may opt to pay an additional \$80 to receive four UC Davis Extension undergraduate academic credits upon course completion and certification. The request for these credits needs to be done within 6-12 months of the course completion.

CLASS SCHEDULE:

Week 1 (Chapter1): January 9, 2024

- Welcome and introductions by course organizers
- Topics: CA Naturalist program, an introduction (Paige DeCino,), California's natural history and naturalists (Karen Merrill).
- iNaturalist, class citizen science project, snack schedule
- Activities: Field notebook sketches: drawing plants/animals (author/artist Janell Cannon)
- Field trip prep
- HW for next class – questions for ch. 8, composition book, sign up for iNat, bring smartphone or laptop

Field Trip: January 13, 2024, 9 am – 2pm, **Dawson Reserve** for birding, tracking, interpretation, field journals, iNaturalist practice (Isabelle Kay, P. DeCino, K. Merrill)

Week 2 (Chapter 8): January 16, 2023

- Interpretation, Collaboration and Citizen Science
- Introduce stewardship project; project summary due by Jan. 30 (wk 4)
- Topics: Interpretation & Collaboration (Karen Merrill), Citizen Science (Paige DeCino)
- Richard Halsey (Chaparral Institute)
- Current conservation issues
- Activities: iNat observations, tracking box, journaling
- HW for next class: questions for ch. 2, soil from yard, skinny jar

Jan. 21, 2024 (Sunday); 9-11:30 am; wildlife tracking (Gary Seiser, San Diego Tracking Team); enrichment field trip

Week 3 (Chapter 2): January 23, 2024

- Geology, Climate and Soils
- Topics: Geology (John Turbeville, Mira Costa College), Nutrient cycles, climate and climate change, soils (Paige DeCino)
- Activities: soil analysis, inorganic layers, rock samples
- Field trip prep
- HW for next class: questions for ch. 4, stewardship project proposal

Field Trip: Jan. 27, 2024, 11-4 pm, **Mt. Soledad** (John Turbeville), geology and **Kendall-Frost Reserve** (I. Kay, P. DeCino, K.Merrill)

Week 4 (Chapter3): January 30, 2024

- Water

- Topics: Water (Chad Loflen, San Diego Regional Water Quality Control Board, Sr Environmental Scientist)
- Activities: lagoon water quality, watershed activity
- Field trip prep
- HW for next class: questions for ch. 4, bring flower

Week 5 (Chapter 4): February 7, 2023

- Plants
- Topics: Botany applied to CA natives (James Dillane, CA Native Plant Society)
- Activities: Leaf structure, flower dissection
- Field trip prep
- HW for next class: questions for ch. 5, bring leaf (soft)

Field Trip: Feb. 10, 2024, 8 am – 1 pm. Lake Calavera Preserve, plants (James Dillane) and restoration/habitat management (Roseanne Humphrey, City of Carlsbad)

Week 6 (Chapter 5): February 13, 2024

- Forest, Woodland, and Range Resources and Management
- Topics: Natural lands management (Kathleen Balazs, Center for Natural Lands Management)
- Activities: Leaf chromatography
- HW for next class: questions for ch. 6A, insect collection

Week 7 (Chapter 6A): February 20, 2024

- Animals/Invertebrates
- Topics: Invertebrates (Jess Mullins, UCSD)
- Activities: insect and macroinvertebrate identification
- Field trip prep
- HW for next class: questions for second half ch. 6B

Field Trip: Feb. 24, 2024, 8:30 – 1:30 pm. Santa Margarita Ecological Reserve (Pablo Bryant, Sandi Jacobson, Beth Cobb, Jamie Bourdon)

Week 8 (Chapter 6B): Feb. 27, 2024

- Animals/vertebrates
- Topics: Vertebrates (TBD)
- HW for next class: questions for ch. 7

Week 9 (Chapter 7): March 5, 2024

- Energy and Global Environmental Issues
- Topics: Energy (Paige DeCino), Climate change and how it impacts our oceans (Lillian McCormick, SIO)
- Activities: Ocean acidification
- Field trip (optional) prep
- HW for next class: prepare for capstone presentation, potluck signup

March 9, 2024, 8-10 am; Birding at Whelan Lake (Denise Riddle, BVAS); enrichment field trip

Week 10: March 12, 2024

- Stewardship project presentations
- Potluck