

Coastal North San Diego County CA Naturalist class syllabus 2023

Course overview: Welcome to the California Naturalist certification 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 capstone 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.

Instructors: Paige DeCino and Karen Merrill (Preserve Calavera), Isabelle Kay (UCSD Natural Reserve System)

Fee: The cost for this course is \$260. The fee is refundable (minus a \$10 processing fee) up to two 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: Most 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 10, 2023 and ending March 14. The four mandatory Saturday field trips (Jan. 14, Jan. 21, Feb. 4, and Feb. 25) will be held at different reserves throughout the region, generally in the morning to early afternoon (except 1/21/23). Two shorter optional field trips for tracking and birding will be on Jan. 29 and March 11.

Required Items:

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

COVID Requirements: All participants are required to be fully vaccinated by the first class. Please bring your official vaccine card to the first class. Depending upon the pandemic situation during the course period, the Nature Center may require the wearing of masks inside the building.

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.

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.

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.

Citizen Science class project:

TBD

Capstone Project:

Certification also requires that each participant plan and complete a Capstone 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 four areas: Stewardship, Education/Interpretation, Citizen 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 natural resource agency or organization. Consider a possible topic in advance and check with us as to its acceptability.

Participants may work individually or in teams to design and implement their Capstone Project. You must submit your project by week 4 for instructor approval; a Capstone 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.

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.

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 (stewardship, education/interpretation, citizen science or program support). Hours spent planning, developing and completing the Capstone 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 \$85 to receive four UC Davis Extension undergraduate academic credits upon course completion and certification. Let the instructor know that you are interested in applying for the credits at the start of class and more information will be provided.

CLASS SCHEDULE:

Week 1: January 10, 2023

- Welcome and introductions by course organizers
- Topics: CA Naturalist program, an introduction (Paige DeCino), California's natural history and naturalists (Chapter 1, Karen Merrill and Paige DeCino)
- 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 14, 2023, 8 am – 1pm, **Dawson Reserve** for birding, tracking, interpretation, field journals, iNaturalist practice (Isabelle Kay, P. DeCino, K. Merrill)

Week 2: January 17, 2023

- Interpretation, Collaboration and Citizen Science (Chapter 8)
- Introduce capstone project; project summary due by Jan. 27 (wk 4)
- Topics: Interpretation & Collaboration (Karen Merrill), Citizen Science (Paige DeCino)
- Richard Halsey (Chaparral Institute)
- Current conservation issues
- Activities: iNat observations, tracking box, journaling in native plant
- HW for next class: questions for ch. 2, soil from yard, skinny jar

Field Trip: Jan. 21, 2022, 11:30 am- 4:30 pm, **Mt. Soledad** (John Turbeville), geology and **Scripps Reserve** for upland habitat and tide pools (I. Kay, P. DeCino, K.Merrill)

Week 3: January 24, 2023

- Geology, Climate and Soils (Chapter 2)
- 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, flower, capstone project proposal

Jan. 29, 2023 (Sunday); 9-11:30 am; wildlife tracking (Gary Seiser, SDTT); enrichment field trip

Week 4: January 31, 2023

- Water (Chapter 3)
- Topics: Water (Chad Loflen, San Diego Regional Water Quality Control Board, Sr Environmental Scientist)
- Activities: lagoon water quality, lagoon dip (invertebrates), watershed activity
- Field trip prep
- HW for next class: questions for ch. 5

Field Trip: Feb. 4, 2023, 8:30 – 1:30 pm. **Santa Margarita Ecological Reserve** (Pablo Bryant, Sandi Jacobson, Beth Cobb)

Week 5: February 7, 2023

- Plants (Chapter 4)
- Topics: Botany applied to CA natives (James Dillane, CA Native Plant Society)
- Activities: Leaf structure, flower dissection
- HW for next class: questions for ch. 3

Week 6: February 14, 2023

- Forest, Woodland, and Range Resources and Management (Chapter 5)
- Topics: Natural lands management (Kathleen Balazs, Center for Natural Lands Management)
- Activities: Leaf chromatography
- Field Trip prep
- HW for next class: questions for ch. 6A, insect collection

Week 7: February 21, 2023

- Animals/Invertebrates (first part of Chapter 6)
- Topics: Invertebrates (Heather Henter, UCSD)
- Activities: insect and macroinvertebrate identification
- Field trip prep
- HW for next class: questions for second half ch. 6B

Field Trip: Feb. 25, 2023, 8 am – 1 pm. **Lake Calavera Preserve**, plants (James Dillane) and restoration/habitat management (Roseanne Humphrey, City of Carlsbad) and volcano geology (John Turbeville)

Week 8: Feb. 28, 2023

- Animals/vertebrates (second part of Chapter 6)
- Topics: Vertebrates (Diego Sustaita, CSUSM)
- Field trip prep
- HW for next class: questions for ch. 7

Week 9: March 7, 2023

- Energy and Global Environmental Issues (Chapter 7)
- Topics: Energy (Paige DeCino), Climate change and how it impacts our oceans (Lillian McCormick, SIO)
- Activities: Ocean acidification
- HW for next class: prepare for capstone presentation, potluck signup

March 11, 2023, 8-10 am; **Birding at Whelan Lake** (Denise Riddle, BVAS); enrichment field trip

Week 10: March 14, 2023

- Capstone project presentations
- Potluck