

# Geology and Geomorphology of Death Valley

## Information

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Date/ Time:   Friday, December 2, 9 am – 5 pm  
                  Saturday, December 3, 9 am – 5 pm  
                  Sunday, December 4, 9 am – 3 pm

Meet at:       [Furnace Creek Visitor Center](#)  
                  Death Valley National Park

Instructor:   Alessandro Grippo, Ph.D., Geological Sciences.

## Overview

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In this below-sea-level basin, steady drought and record summer heat make Death Valley a land of extremes. Yet, each extreme has a striking contrast. Towering peaks are frosted with winter snow, but the valley bottom can reach almost 130°F in summer. While rainstorms maybe uncommon, they bring many dramatic changes to the landscape. Join instructor Alessandro Grippo in the exploration of the geology and landscape of Death Valley. This course takes the students through the geologic highlights of Death Valley National Park. The class meets at the conference room at Stovepipe Wells Village Hotel on Friday morning and, after an introduction to the geology of the Basin and Range desert and its natural physical processes, students will travel south by car to hike the Natural Bridge trail. They will then head back to the valley bottom to explore the playa lake at Badwater, with further stops during the day at Devils Golf Course and Artists Palette. On Saturday the class will meet at Stovepipe wells, from there the students will visit Devils Cornfield and then wander through the Mesquite Flat Sand Dunes. After lunch, students will hike and explore Mosaic Canyon. Finally, on Sunday the class will drive to the westernmost part of the park by entering the Panamint Valley and later go for an easy hike at Darwin's falls to complete their exploration.

Participants will need to acquire lodging within Death Valley as soon as possible. We have reserved campsites for those who wish to camp. Non-camping accommodations include Stovepipe Wells Village Hotel or the Ranch at Death Valley. **Don't wait to make your reservations!** Please contact us for more information.

## Itinerary

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Friday, December 2, meet at Furnace Creek Visitor Center, 9:00 am

9:30 – 11:00 - Introduction

11:30 – 1:00 – natural Bridge trail hike

1:00 – 1:30 - lunch, **bring your own food**

1:30 – 2:30 – Badwater

3:00 – 4:00 – Devils Golf Course

4:00 – 4:30 – Artists Palette and Artists Drive

5:00 back to Furnace Creek

Saturday, December 3, meet at Furnace Creek Visitor Center, 9:00 am

9:30 – 10:15 – Devils Cornfield

10:15 – 12:00 – mesquite Flat Sand dunes

12:00 – 1:00 - lunch at Stovepipe Wells (choice of **restaurant or bring your own food**)

1:00 – 4:00 - Mosaic Canyon

5:00 – back to Furnace Creek

Sunday, December 4, meet at Furnace Creek Visitor Center, 9:00 am

9:30 – drive to Panamint Valley (54 miles / 86 km)

11:00 – 12:30 hike to Darwin Falls

1:00 - Lunch at Panamint Springs (choice of **restaurant or bring your own food**)

- Turn in field notes and take home quiz for students taking class for college credit
- Class will end at Panamint Springs, on CA 190 to Olancho / CA 136 to Lone Pine, a few miles from Panamint Valley Road to Trona and Mojave

## What to Bring to the Course

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### ***Required Class Materials***

- Field notebook, pencil, eraser.

### ***Optional Class Materials***

- An ink pen and color pencils may be useful
- A ruler (metric and standard) maybe useful for scales in pictures.
- A hand lens if available
- Camera (with plenty of memory)
- Cellphone for emergencies and communications

### ***The 10 Essentials: Every day in the Desert***

- Day pack

- 4 quarts of water
- Closed toe hiking shoes
- Lunch and snacks
- Clothing layers
- Hat
- Sun glasses
- Sunscreen
- Notebook and pencil/pen
- Whistle

### **Fitness Requirements**

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Participants must be in good physical condition for courses/activities in a desert that may be hot, dry, windy, and sometimes surprisingly cold.

### **Hike Level**

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Easy to Moderate

### **College Credit**

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If taking this course for 2 unit of Geology (X453) credit through the University of California Riverside Extension, student participation and a field exam will determine the grade.

### **Guidelines**

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- You are responsible for your safety.
- Park your car in designated areas only. Parking along the side of the road is dangerous to you and the environment.
- Rattlesnakes are present in the desert. Avoid contact with wildlife. Put your hands and feet only where you can see them.
- Stay with the group. If you get lost, stay put.
- Before leaving the class, check out with the Desert Institute Representative.
- Drink plenty of water. If you run out, notify the instructor or the Desert Institute Representative.

### **Instructor Biography**

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ALESSANDRO GRIPPO, Ph.D., Geological Sciences, is an active scientist who does research and teaches geology, oceanography, stratigraphy, environmental geology and a variety of field classes at Santa

Monica College and several California State University campuses. Alessandro has a keen interest for the geology of the American southwest and loves being out there exploring, learning, and sharing his passion for Earth and its history.

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\* The Desert Institute staff/instructors will attempt to accommodate participant's needs; however we reserve the right to deny a student participation in the course due to concerns regarding health and safety issues.