

at Joshua Tree National Park

74485 National Park Dr. Twentynine Palms, CA 92277

Phone: 760-367-5539 e-mail: desertinstitute@joshuatree.org

Geology: Creation of the Joshua Tree Landscape

Information

Date/ Time: Saturday, October 30, 9:00 AM – 5:00 PM

Sunday, November 1, 8:00 AM – 12:00 PM

Meet at: [Oasis Visitor Center](#) (click on the link for a map to the meeting site)

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Instructor: Tor Lacy, M.S., Professor of Earth Sciences, Cerritos College

Overview

Investigate the natural architecture and origin of Joshua Tree National Park's landscape with Tor Lacy, Professor of Earth Sciences. Starting in the classroom participants will be introduced to basic geologic principles including major rock groups, plate tectonics, mountain building, and the impact of weathering and erosion. Tor will discuss how these processes worked together to form the fantastic desert landscape of the park. The class will venture into the field on two excursions to observe and identify monzogranite, gneiss, veins, and basaltic rocks as well as inselbergs, alluvial fans, and pediments. For those new to geology or experienced geologists, Tor will make learning about the complex and unique landscape of Joshua Tree National Park comprehensible and fun.

Itinerary

Saturday, October 30, 9:00AM – 5:00PM

Oasis Visitor Center

- Lecture, discussion and multi-media presentation
- Lunch break, **bring your own food**
- Field class, Geology Tour Rd, **depending on the condition of the road, high clearance vehicle may be required – carpooling will be arranged.**

If you have any concerns about not having the required vehicle please call. Lunch will be in the field; be sure to **bring your own food and water.**

- Field class to Arch Rock, or Jumbo Rocks or Split Rock (if time allows).

Sunday, November 1, 8:00AM – 12:00PM

Oasis Visitor Center

- Field class to Pinto Mountain Fault
- Field class to Desert Queen Mine - a moderate two-mile round trip walk.

- *If taking course for credit – ending around 3:00pm*

What to Bring to the Course

Required Reading

- Trent & Hazlett, *Joshua Tree National Park Geology*, available at visitor centers or online at joshuatree.org/store

Required for Class

- A 4 wheel drive **AND/OR** standard clearance vehicle. If you do not own a vehicle that meets these requirements, we will arrange carpooling with other participants. If you have any concerns about not having the required vehicle please call 760-367-5539.

Optional Equipment

- Hiking Poles

The 10 Essentials: Everyday in the Desert

- Day pack
- 4 quarts of water
- Hiking boots with traction soles
- Lunch and snacks
- Clothing layers
- Hat
- Sun glasses
- Sunscreen
- Notebook and pencil/pen
- Whistle

Fitness Requirements

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

Easy to Moderate

Guidelines

- 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 park. Avoid contact with wildlife. Put your hands and feet only where you can see.
- Stay with the group. If you get lost, stay put.
- Drink plenty of water. If you run out, notify the instructor or the Desert Institute Representative.
- Before leaving the class, check out with the Desert Institute Representative.

College Credit

If taking this course for 1 unit of Geology (X460.4) credit through the University of California Riverside Extension, student participation and a field exam will determine the grade.

Instructor Biography

Tor Lacy, M.S. is a tenured instructor at Cerritos College teaching: Physical Geology, Introduction to Earth Science, Geology of the Western National Parks and Monuments, Natural History of Southern California and Field Methods of the Earth Sciences.

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