

## BIOL 299 Climate Change Seminar

May 15-20, 2017

**\*For Field trips on Tues, Weds, & Thurs: bring lunch, rain jacket, hat, sunblock, water, etc.\***

### **Monday, May 15: Climate Change Challenges**

#### **Introduction to Climate Change**

9:00 **Rio Grande Hall**, Room 126 (in Nursing Department)

9:00 – Noon What is Climate Change?

Noon – 1 lunch (bring lunch or on own)

1:00 – 3:00 Climate Change Challenges

3:00 End

### **Tuesday, May 16: Climate Change Adaptations**

#### **Taos Farming in a Warmer, Drier, and Unpredictable World**

NO VAN: drive your own car; Pack a bag with raingear, water, lunch, notebook, etc., to carry with you)

9:15 Arrive at 814 Witt Rd (on right, 100 yards past Anglada Building “Taos Christian Academy”)

9:30-11:30 Vicente Fernandez, Mayordomo, Tour of Canon Neighborhood Acequia Projects

11:30-12:15 Lunch (bring packed lunch)

12:30-1:45 Hike up Divisidero Trail to see Tree Stress and an Evolving Biome

2:00-4:00 Miguel Santistevan, Cultivating Drought and Heat Tolerant Food

4:00 End

### **Wednesday, May 17: Climate Change Science**

#### **CCC Grad Student Research and New Mexico Highlands University**

8:20 arrive Klauer by 8:20 and load van

8:30 leave **Klauer** campus in UNM Vans

10:15 Arrive Rio Mora National Wildlife Refuge

10:15-11:15 Nicasio Gonzalez, CCC M.S. Student, shares research on riparian herps

11:15-12:30 Eliza Montoya, CCC M.S. Student, shares research on water retainment & arroyo ecology

12:30-1:00 Lunch at Refuge (bring packed lunch)

1:00-1:30 Travel to Highlands University

1:30-2:45 Dr. Edward Martinez, Tour of Ivan Hilton Science Center & Welcome to Dept. of Natural Resources and the Dept. of Biology

2:45 Leave Las Vegas

4:15 Arrive **Klauer** campus

#### **Directions to Rio Mora Wildlife Refuge (1 hr 45 minutes):**

On HWY 518, drive through Mora to Buena Vista and make a left to Golondrinas on HWY 161. Travel about 21 miles on HWY 161. Nico will meet us in grey jeep at the Wind-River Ranch entry with a FWS refuge sign.

Taos to Mora: 64 minutes

Mora to Refuge: 30-40 minutes

Refuge to Highlands: 30 minutes

Las Vegas to Taos: 90 minutes

## **Thursday, May 18: Climate Change Solutions**

### **Solar Power Tour, Taos goes solar by 2022!**

9:00 leave **Klauer** campus in UNM Vans  
See Attached Agenda; Bring Packed Lunch!  
4:00 End **Klauer** campus

## **Friday, May 19: Communicating the Challenge, Adaptations, and Solutions**

### **Make Posters to Share at CCC Picnic**

9:00 – 10:00 Print Photos and Make Posters; **Rio Grande Hall**, Rm 126  
10:00 – 11:00 New CCC Student Orientation  
11:00 – Noon Set up Posters at Picnic Tables (need string, tape)  
Noon- 2:00 CCC Picnic at Kit Carson Park  
2:00-2:30 Take down posters and wrap up.

Have a good summer!

**Field Trip Guide**  
**Renewable Energy Solutions To Climate Change**  
**Taos & Vicinity, NM**  
**Thursday, May 18, 2017, 9:00 A.M. – 4:00 P.M.**

**UNM-Taos, Renewable Taos, Inc., PPC Solar, Kit Carson Electric Cooperative and  
Valverde Energy**

**Trip Leaders:** William M.(Bill) Brown, Renewable Taos, Inc. and Dr. Brooke Zanetell,  
Faculty, UNM-Taos;

**Attendees:** 10 students in Northern New Mexico Climate Change Corps class; others by  
prior arrangement.

**Draft Itinerary (flexibility built in to accommodate scheduled appointments):**

9:00 Leave UNM-Taos Klauer Campus

9:15-10:15 -- PPC Solar, 245 Paseo Del Cañon East

Presentations by Daniel Weinman and PPC Solar principals

10:30 - 11:30 -- Kit Carson Electric Co-op (KCEC), 118 Cruz Alta Road

Presentation by Luis Reyes, CEO, KCEC

11:30 – 12:00 Noon -- KCEC solar canopy & 115 kV transmission line & local distribution  
lines briefing (front of KCEC building)

12:00 – 12:05 – Travel to Taos Charter School (arrangements pending),  
1303 Paseo Del Cañon E, Taos, NM 87571

12:05 – 1:00 – Lunch & Briefing on Community Solar Array parking canopy & solar  
thermal heating panels on school building (arrangements pending)

1:00 – 1:05 – Travel to Taos Eco Park 940 Salazar Rd, Taos, NM 87571

1:05 – 1:30 – Briefing on Taos Eco Park solar canopy, other area canopies & commercial  
facilities, and nearby 115 kV transmission line

1:30 – 2:00 – Valverde Energy visit & briefing on solar thermal systems with Larry Mapes,  
Founder & Owner (confirmed)

2:00 – 2:10 -- Travel to Los Cordovas Electrical Substation  
(KCEC Safety Officer and/or Luis Reyes will accompany us for access)

2:10 – 2:30 – Los Cordovas Electrical Substation: Briefing by Renewable Taos principals &  
KCEC principals on Taos connection to the Western Grid, transmitting solar and  
wind energy, uses for dual 345kV and 115 kV transmission lines leading westward  
from Los Cordovas Substation

2:45 – 3:00 -- Travel to UNM-Taos via Los Cordovas Road with brief stop near Taos Water  
Treatment Plant to view area scheduled for a new 1-megawatt solar array.

3:00 - Visit Klauer Campus 500-kilowatt (kW) Array, 1st solar-powered community  
college! (Presenter TBD/PPC Solar?)

4:00 - End.