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 rain gear, 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 retention & 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

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**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.