Short-Term Field Study Program Information

Please	provide	the	following	information:
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Field Study Program Name:	Honors Interdisciplinary Field Program
Field Study (FSTY) Course ID:	FSTY 1025
Field Study (FSTY) Course CRN:	TBD
Semester Program will be Offered:	Summer 2024
Location of Field Study:	Various locations throughout the USA (this is a mobile program)
Program Director/Contact Name:	Julia Cox, Paul Schroeder
Program Director/Contact Phone Number:	706-542-2652
Program Director/Contact Email Address:	juliaec@uga.edu_
Program Start Date (First meeting with enrolled students):	5/31/2024
Program End Date (Last meeting with enrolled students):	7/29/2024
Travel Start Date:	5/31/2024
Travel End Date:	7/29/2024
Anticipated Number of Total Students Participating in Program:	18-24
Anticipated Number of UGA Students:	18-24
Anticipated Number of Transient Students:	0-2
Anticipated Number of Undergraduate Students in the Program:	18-24
Total Number of Credit Hours Taken by Each Undergraduate Student:	11-15
Anticipated Number of Graduate Students in the Program:	0
Total Number of Credit Hours Taken by Each Graduate Student:	NA

Please list each course offered through the program on a separate row below:

Course Title	Course Prefix	Course	Credit	Schedule	Instructor(s)	Department	Course	Course	Total Lecture	Total Field/ Lab	Total Contact
course ritle	course Frenk	Number	Hours	Туре	instructor(s)	of Instructor(s)	Start Date	End Date	Hours	Hours	Hours**
Introduction to Anthropology (Honors)	ANTH	2120H	3	Lecture	Thompson, Gragson	Crop & Soil, Anthropology	5/31/2024	7/29/2024	72.5	8.25	76.625
Indians of North America	ANTH	4020	3	Lecture	Thompson, Gragson	Crop & Soil, Anthropology	5/31/2024	7/29/2024	72.5	8.25	70.025
Program requires each student register for 3hrs A	NTH with option	ns above.							ANTH courses overlap in conter	t. All students are required to attend all lect	ures and participate in all activities.
Ecological Basis of Environmental Issues (Honors)	ECOL	1000H	3	Lecture	Kaitlin Farrell, GTAs	Ecology	5/31/2024	7/29/2024			
Ecological Basis of Environmental Issues Lab	ECOL	1000L	1	Supervised Lab	Kaitlin Farrell, GTAs	Ecology	5/31/2024	7/29/2024	89.25	25.75	102.125
Ecology of North America + Lab	ECOL	4160-4160L	4	Lecture	Kaitlin Farrell, GTAs	Ecology	5/31/2024	7/29/2024			
Program requires each student register for 4hrs	COL with option	is above.							ECOL courses overlap in conten	t. All students are required to attend all lected	ures and participate in all activities.
Physical Geology (Honors) + Lab	GEOL	2350H-2350L	4	Lecture	Cox, Schroeder	Geology	5/31/2024	7/29/2024			
Historical Geology (Honors) + Lab	GEOL	2360H-2360L	4	Lecture	Cox, Schroeder	Geology	5/31/2024	7/29/2024	134.0	34.0	151.0
Geology of North America + Lab	GEOL	4330-4330L	4	Lecture	Cox, Schroeder	Geology	5/31/2024	7/29/2024			
Program requires each student register for 4-8hrs	GEOL with optic	ins above.							GEOL courses overlap in conten	t. All students are required to attend all lect	ures and participate in all activities.

*Please work with department schedulers and OIE to ensure that all academic courses are scheduled in the same Part of Term as the program FSTY course. Please also complete the Academic Itinerary found on the second worksheet of this document. **Total Contact Hours = Total Lecture Hours + (Total Field Hours / 2) Courses require 12.5 contact hours for each credit hour earned

For questions, please contact the Office of Curriculum Systems at csfieldstudy@uga.edu or 706-542-6358.

Academic Itinerary

Field Study Program Name: Honors Interdisciplinary Field Program Field Study (FSTY) Course ID: FSTY 1025 Program Start and End Da Instructors and Courses

Dates:	5/31/2024 - 7/29/2024	
s Taught:	Instructor	Course(s) Taught
	Jennifer Thompson et al.	ANTH 2120H, ANTH 4020
	Kaitlin Farrell et al.	ECOL 1000H, ECOL 1000L, ECOL 4160-4160L
	Julia Cox et al.	GEOL 2350H-2350L, GEOL 2360H-2360L, GEOL 4330-4330L

Each course has 3-4 instructors alternately spending 2-4 weeks with the program. The listed primary instructor coordinates with all faculty to ensure content coverage, learning outcomes, and contact hours. The courses overlap in content. All students are required to attend all lectures and participate in all activities during the program.

Faculty and students do everything together as a group. Instructors are always present and available to students (on hikes and tours, in camp, etc).

The IFP is academically rigorous with very little down time for students, as shown in the schedule below.

Day Time Activity Centrol Centrol Feedback Total Hour Tead Hour						GEOL			ECOL			ANTH	1
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Code + luck depart for Consigner Dor Runger Do			Brief organizational meeting in room 200 A; introductions and instructions, distribute notebooks, hand										
100 Departure from UGA				class meeting	0.25			0.25			0.25		
Arrise Sparts quick outcop; first first disclibit, go over proper use of field notebooks, nock hummers (3, 1000) 100 10000 1000 1000 1000 <td></td>													
100 Level Spatial outcomp Level Spatial outcomp Level Spatial outcomp Level Spatial			Arrive Sparta granite outcrop; first field activity, go over proper use of field notebooks, rock hammers (3.5	lecture and field activity (instrutor-led)	15			0.5					
1000 Antwo Considues National Monuments Latal lucub. Image: Considue Set Manual Manual Manual Set Manual				······	1.5			0.0					
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2000 loaded first. Provided on Sagelo: bed linens and pilows. Towels NOT provided. Image: Comparison of Compar													
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700 Breakfast, Pack lunch.					0.20			0.20			0.20		
700 Breakfast. Pack lunch.	l	3	Sapelo										
		2	•										
			800 FIELD EXCURSION: Salt marsh	lecture and field activity (instrutor-led)	0.5			1.5					

	1000 Return from field, clean up		1	1 1		1	1		
	1100 Lecture: Key Concepts in Anthropology	lecture					1		
	1200 Lunch Break								
	1300 Lecture: Rock Cycle and Igneous Processes	lecture							
		lecture	2.5						
	1530 Break								
	1545 Lecture: Marine Invertebrates & Geologic Time Scale	lecture	1.25		1				
	1800 Dinner								
	1930 Lecture: Weathering and Sedimentary Processes	lecture	1.5						
4	Sapelo								
-	700 Breakfast. Pack lunch.								
	800 Lecture: Methods and Ethics in Anthropology	lecture							
							1		
	900 FIELD EXCURSION: Hog Hammock Tour	guided tour					3		
	1200 Lunch break								
	1300 Lecture: Introduction to Cultural Anthropology	lecture					1		
	1400 Break								
	1415 Lecture: Stress, Deformation & Metamorphism	lecture	1						
	1515 Break								
	1530 Lecture: The Rock Cycle and Rock ID	lecture	2.5						
	1800 Dinner								
	1930 Videos: The Beaches are Moving, current volcanism	videos and class discussion	1.5						
			1.0						
5	Sapelo								
5	700 Breakfast. Pack big lunch (long day).								
	800 Lecture: Hydrology and Groundwater Resources	lecture	1.5						
	930 FIELD EXCURSIONS (split into two groups):								
	Trawl in Doboy Sound (half group goes to Nannygoat)	field activity (instructor-led)			2				
	Nannygoat Beach - water table (half of group does trawl)	field activity (instructor-led)	2						
	1330 Lunch break								
	1400 FIELD EXCURSION: Shell Ring, Racoon Bluff, Cabretta Beach								
	1430 Shell Ring (quick stop at Chocolate after Shell Ring)	field activity (instructor-led)					1.5		
	Racoon Bluff	field activity (instructor-led)	1						
	Cabretta	field activity (instructor-led)	0.5		0.5				
	1830 return								
	1900 dinner								
	2000 Study time & Mandatory Staff Meeting								
	2000 oracly and a mandatory oran meeting								
6	Sapelo - Exam 1								
	700 Breakfast. Pack lunch.								
	800 EXAM	exams	1		1		1		
	800 EXAM 1100 rest of day off for laundry, cleaning, relaxing on beach	exams	1		1		1		
		exams	1		1		1		
	1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks	exams	1		1		1		
	1100 rest of day off for laundry, cleaning, relaxing on beach	exams	1		1		1		
7	1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks1800 dinner on the beach!	exams	1		1		1		
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 	exams	1		1		1		
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 	exams	1		1		1		
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 	exams	1		1		1		
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 	exams	1		1		1		
7	1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland	exams	1		1		1		
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am 		1	0.25	1	0.25	1	0.25	
7	1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland	exams visitor center	1	0.25	1	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Oktefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 	visitor center	1	0.25	1	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 	visitor center	1	0.25	1 25	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 	visitor center	1	0.25	1.25	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Oktefenokee, Kolomoki 630 Breaktat. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 	visitor center	1.25	0.25	1	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Weirdian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 	visitor center lecture and field activity (instructor led)	1	0.25	1	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 	visitor center	1	0.25	1	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Oktefenokee, Kolomoki 630 Breaktast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 	visitor center lecture and field activity (instructor led)	1	0.25	1	0.25	1.5	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1030 depart for Kolomoki (all Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 	visitor center lecture and field activity (instructor led)	1	0.25	1.25	0.25	1.5	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Oktefenokee, Kolomoki 630 Breaktast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 	visitor center lecture and field activity (instructor led)	1	0.25	1	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Oktefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Mendian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1030 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics 	visitor center lecture and field activity (instructor led)	1	0.25	1	0.25	1	0.25	
7	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1030 depart for Kolomoki (all Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 	visitor center lecture and field activity (instructor led)	1	0.25	1	0.25	1.5	0.25	
	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) 	visitor center lecture and field activity (instructor led)	1.25	0.25	1	0.25	1	0.25	
7 8 EDT->CDT	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breaktat. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1030 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) Providence Canyon 	visitor center lecture and field activity (instructor led)	1	0.25	1	0.25	1.5	0.25	
	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1030 depart for Kolomoki (all Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) Providence Canyon 600 Breakfast (Bags to the van at 0545) 	visitor center lecture and field activity (instructor led)	1	0.25	1	0.25	1.5	0.25	
	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) Providence Canyon 600 Breakfast (Bags to the van at 0545) 700 Leave for Providence Canyon 	visitor center lecture and field activity (instructor led) lecture and guided tour	1.25	0.25	1	0.25	1.5	0.25	
	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1030 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) Providence Canyon 600 Breakfast (Bags to the van at 0545) 700 Leave for Providence Canyon. Overfook, hike canyon, discuss stratigraphy, diagenesis, groundwater erosion, Arrive Providence Canyon. 	visitor center lecture and field activity (instructor led) lecture and guided tour	1	0.25	1	0.25	1.5	0.25	
	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) Providence Canyon OW Breakfat (Bags to the van at 0545) 700 Leave for Providence Canyon. Overlook, hike canyon, discuss stratigraphy, diagenesis, groundwater erosion, all deposition 	visitor center lecture and field activity (instructor led) lecture and guided tour	1.25	0.25	1 1.25	0.25	1.5	0.25	
	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Oktefenokee, Kolomoki 630 Breaktast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) Providence Canyon Arrive Providence Canyon. Overlook, hike canyon, discuss stratigraphy, diagenesis, groundwater erosion, 800 stream erosion and deposition 1200 Leave Providence Canyon (navigate to Eufala, Montgomery AL) 	visitor center lecture and field activity (instructor led) lecture and guided tour	3	0.25	1	0.25	1	0.25	
	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Okefenokee, Kolomoki 630 Breakfast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1030 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive Kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) Providence Canyon 600 Breakfast (Bags to the van at 0545) 700 Leave for Providence Canyon. Overfook, hike canyon, discuss stratigraphy, diagenesis, groundwater erosion, arrive Providence Canyon (navigate to Eufala, Montgomery AL) ASSIGN VIDEO: Earth Revealed - Rivers & Landforms (2 videos) 	visitor center lecture and field activity (instructor led) lecture and guided tour	1 1.25 3 1.25	0.25	1	0.25	1.5	0.25	
	 1100 rest of day off for laundry, cleaning, relaxing on beach staff grades exams and field notebooks 1800 dinner on the beach! Oktefenokee, Kolomoki 630 Breaktast. Bags to trucks at 0615. 700 Final cleaning 730 Departure for ferry dock 800 Ferry to mainland Arrive Meridian dock. Pack truck with gear. Visit Meridian Visitor Center (opens 7:30am Tues-Fri, 8am Sat) 900 depart for Folkston GA (use Apple map app to navigate to 2700 Suwannee Canal Rd, Saint George GA) 1030 Okefenokee NWR Visitor Center, Swamp Island Drive, hiking trails 1300 depart for Kolomoki (call Kolomoki to tell them ETA - they are staying open late for us) 1330 gas stop Flash Foods 1736 S Georgia Pkwy W, Waycross, GA 31503 1700 Arrive kolomoki Museum. Tour museum and Temple Mound. 1830 Arrive in camp, Kolomoki Mounds SP 1900 Dinner 2000 Camp meeting: crew assignments, logistics ASSIGN PAPERS: Nutrient pollution (assign ECOL 4160 lead 15-min discussion of nutrient phases) Providence Canyon Arrive Providence Canyon. Overlook, hike canyon, discuss stratigraphy, diagenesis, groundwater erosion, 800 stream erosion and deposition 1200 Leave Providence Canyon (navigate to Eufala, Montgomery AL) 	visitor center lecture and field activity (instructor led) lecture and guided tour	3	0.25	1 1.25 1.25	0.25	1.5	0.25	

	1130 (CDT) Enter Alabama and Central Daylight Time		1		1 1	1	1	1	1
	1300 (CDT) Gas stop near Montgomery.								
	Travel on US80 business route to cross historic Edmund Pettus bridge.								
	1600 (CDT) Stop, Mississippi Visitors Center								
	1800 arrive camp - LeFleur's Bluff State Park, Jackson MS								
	1830 dinner								
	1930 Lecture: Hominid evolution	lecture						1	
	ASSIGN PAPER: Economic importance of Bats								
	ASSIGN FAFER. Economic importance of bats								
9 All times CD									
	600 Breakfast (bags to van at 0545)								
	700 Departure								
	Mississippi River overlook, lecture (Mississippi River, Gulf of Mexico dead zone, Pleistocene loess								
	800 deposits)	lecture	0.5		0.5				
	900 Depart								
	To get to Poverty Point from I-20, take the Delhi exit (exit 153) and travel N on LA-17, E on LA-134 and N	1							
	on LA-577 (follow the signs)								
	1000 Arrive Poverty Point, video, museum, tram tour and atl atl toss.	guided tour						2.25	
	1230 Leave Poverty Point.	3						2.20	
	ASSIGN VIDEO: HHMI Evolution lectures (2 lectures)	videos and class discussion in van	0.05						
	ASSIGN VIDEO: Havnesville	videos and class discussion in van	2.25						
		videos and class discussion in van	1.5						
	1830 Arrive in camp - Loyd Park, Grand Prairie TX								
	1900 Dinner								
	2000 LECTURE (ECOLOGY): Nutrient biogeochemical cycles (ECOL 4160 leaders for 15 min max)				1				
10 CDT->MDT	Permian Basin, drive to Guadalupe Mtns								
10 001 1101	615 Breakfast (bags to van at 0600)								
	715 Leave camp								
	ASSIGN VIDEO: Gasland	videos and class discussion in van	1.75						
	Eastland Cty rest area at exit 361 - new and nice rest area								
	915 GOOD GAS STOP ON I-20 at town of CISCO approx at exit 330								
	ASSIGN VIDEO: Your Inner Fish (55 mins)	videos and class discussion in van	1						
	ASSIGN VIDEO: Your Inner Monkey (55 mins) and Ardipithecus	videos and class discussion in van						1	
	1300 Permian Basin Petroleum Museum in Midland TX (group tour)	guided tour	2					0.5	
	1530 Depart for camp	guidea tour	2					0.5	
	1730 (MDT) Enter Mountain Daylight time (NM and far west TX)								
	1745 (MDT) Arrive in camp Pine Springs Campground, Guadalupe Mtns NP								
	1830 (MDT) Dinner								
	1930 (MDT) Lecture: Paleozoic reef communities and Permian Basin paleogeography	lecture	1						
11	Guadalupe Mtns/Carlsbad Caverns (all times MDT)								
	630 Breakfast; pack lunches								
	730 Depart for McKittrick Canyon (entrance gate opens 8AM MDT (not CDT))								
	800 have students sketch reef profile before hiking up slope; hiking safety talk	lecture and field activity (instructor-led)	1.5	1	1.5	1			
	hike Permian Reef trail (8.4 mi roundtrip, 2000' elevation gain); geologic markers along trail (look for and								
	sketch fossils; note reef facies changes)								
	students should identify and sketch a marine invertebrate fossils they find on the trail (at least one per								
	phylum, class)								
	Ask students to sketch an elevation profile of the vegetation from the base to the summit of the mountain.								
	How does this vegetation profile compare to those on the Sapelo beach and salt marsh profiles? Think								
	about abiotic factors that influence the biotic communities.								
	1300 return to vans								
	1330 Guadalupe Mtns Visitor Center	tour		0.25		0.25			0.25
	1430 return to camp								
	Lecture: Economic importance of bats and conservation/disease ecology, ASSIGN PAPER: Achaeology-								
	1530 ecology	lecture			1				
	1700 dinner								
	1830 Drive to Carlsbad Caverns for bat flight program.								
	1930 Bat flight program	ranger-led program			1				
		ranger-led program			'				
	2130 return to camp								
12	Carlsbad Caverns, drive to Santa Fe (all times MDT)								
	615 breakfast (bags to truck 600), make lunches								
	715 depart camp								
	730 stateline (evaporites) roadcut	lecture and field activity (instructor-led)	0.75						
	Arrive Carlsbad Caverns, lecture on cave carbonate dissolution and deposition (what is source of acid	- * *							
	900 here?)		0.5						
	930 Natural Entrance tour (opens at 8:30; last entrance 3:30 (4pm if using elevator))	tour		3					
	students should sketch a number of depositional feature in their field notebooks			Ŭ					
	1230 leave for Santa Fe								
		states and store discuss?							
	ASSIGN VIDEO: Valles Caldera	video and class discussion in van	0.5		0.5				
	1430 gas stop Roswell (Chisum Travel Center on L heading out of town)								
	1800 Arrive in camp - Rancheros de Santa Fe (ask for permission to use laundry room after hours)								
	1830 Dinner								
					•				

	Lecture: U.S. Physiographic provinces; Federal government agencies and public land use; petroleum 1930 production	lecture	1.5				
13	Day Off in Santa Fe						
14	Bandelier National Monument and Valles Caldera (All times MDT) 615 Breakfast 715 Leave camp						
	Arrive Bandelier National Monument (MUST arrive before 9am to drive into park, otherwise must take 830 shuttle), tour ruins, museum (2 mile roundtrip hike) 1200 Leave Bandelier for Valles Caldera	guest lecture, guided tour					3.25
	1245 Valles Caldera overlook; caldera volcanics lecture	lecture	1.25				
	1415 Meeting NSF-CZO Field Station managers to discuss current CZO operations. 1530 Valles Caldera visitor center	guest lecture visitor center	0.5	0.25	0.75	0.25	
	if time: roadstops at South Mtn rhyolite dome, pumice, and obsidian outcrops along NM4 west of caldera 1600 head to camp 1800 Dinner LECTURE (ECOLOGY) 4160 students assigned to give 5-10 minute overview of 1) Archaeology-ecology 1930 and ecological succession and legacy of environmental disturbances NOTE clothing for tomorrow should be appropriate for Acoma visit. No tank tops or short shorts. Respectful clothing please. Also, pottery and jewelry will be on sale at Acoma. Many vendors only take CASH.	lecture		0.20	1.5		
15	Acoma Pueblo, Chaco Pueblo Bonito (All times MDT) 600 Breakfast (bags to truck 545)						
	Leave camp for Acoma Pueblo. Travel South on I-25 to Albuquerque. Then travel West on I-40 for approximately 55 minutes. Exit at Exit 102; continue to the roundabout and cross over I-40 following the signs to Acomita/Rest Area. At the last roundabout exit at the second right and head to the bottom of the small hill with a Stop sign, turn right and follow the signage to Sky City Cultural Center/Haak'u Museum. You will travel through the small village of Acomita for approximately 5 miles then turn left and follow the 700 signs to Sky City Cultural Center/Haak'u Museum approximate drive is 15 miles from I-40. ASSIGN VIDEO: The Mystery of Chaco Canyon arrive Sky City Cultural Center/Haaku Museum for check-in (NOTE: there is NO note-taking allowed in the museum or during the tour. Also, photography only allowed with camera permit - can be obtained with 900 entrance ticket)	video and class discussion in van					1
	930 Acoma guided tour begins (board shuttle to begin)	guided tour					2
	1200 Museum	museum					0.5
	depart for Chaco (I-40W to exit 53, take 371 to Hwy 9 and 57 to Chaco. (Another option - I-40W to Exit 79, take Hwy 605 to 509 to Hwy 9 and 57). See map in excursions folder. Route involves 20 miles of dirt 1230 road on 57. CALL CHACO FIRST TO CHECK ON ROAD CONDITIONS 505-786-7014. gas stop Grants exit 79						
	ASSIGN VIDEO: What Was Chaco	video and class discussion in van					1
	1400 Arrive Chaco visitor center	visitor center		0.25		0.25	0.25
	1500 tour Pueblo Bonito, Casa Rinconada Arrive at camp, Gallo Group Camp (on the right as you enter the park before the visitor's center. Drinking water available at the visitor's center parking lot. Water in the camp ground not potable due to mineral 1730 content.)	guided tour (instructor-led)					2.5
	1800 Dinner (also pack lunches tonight to save time tomorrow) 1930 lecture - Ancient Puebloans, Paleoclimatology	lecture	0.5				1
16	Chaco Pueblo Alto hike (All times MDT) 600 Breakfast (bags to truck 545)						
	1300 Last hikers return to vans depart after final stop at visitors center (follow route to US 550, Nageezi via 7950 and 7900 (13 miles of 1330 dirt road on the way out))	lecture and field activity (instructor-led)	2	1	1		1
	gas stop Aztec (Roadrunner Fuels 800 S Main Ave, Aztec, NM 87410) - comment on San Juan Basin oil and gas arrive Mesa Varde visitor center (outside park entrance); purchase tour tickets for Balcony House (more 1920 entremised be CME Balces (Income)	lecture	0.5				
	1630 adventurous) or Cliff Palace (larger) arrive Morefield group campground. Check in at store first. Then select group campsite(s) - the first two 1730 sites on the right work well (sites #16&17). 1800 dinner	visitor center					0.5
	1930 Lecture - Colorado River hydrology ASSIGN PAPERS: Drying of the West, Unplugging the Colorado River	lecture	1.25				
17	Mesa Verde pit houses and cliff dwellings (All times MDT) 630 Breakfast, make lunches 730 Leave camp						
	830 Mesa Top Loop - pit houses and Sun Temple	lecture and tour (instructor-led)					2.5
	1100 Museum tour	tour		0.5		0.5	1
	1400 Balcony House tour (must purchase tickets in advance)	ranger-led tour	1	I	I I	I	

	1500 Cedar Tree Tower - hike Farming Terrace trail (0.5 mile loop) Park Point overlook - overview of Four Corners geology (go to right at top lookout for overlook of Mesa 1630 Verde canyons, Sleeping Ute, Shiprock) 1730 Return to camp 1800 Dinner Evening hike to Point Lookout to watch sunset (2.2 miles roundtrip from campground amphitheater	instructor led field activity lecture	0.25		0	25	0.5 0.25
	1930 parking lot); No lecture on top. ASSIGN PAPERS: Fossil and Renewable Energy papers.						
18 MDT to MST	Four Corners, Grand Canyon South Rim 630 Breakfast (Bags to truck at 0615) 730 Leave camp						
	Stop at Mancos Shale just outside of park, fossil hunting & ID. (pull off in acceleration lane heading N on 800 160)	field activity (instructor led)	1				
	900 depart for Goosenecks 1100 Goosenecks State Park (overlook incised meander) 1200 head to Arizona via Monument Valley	lecture	0.5				0.5
	1430 (MST) Grand Canyon Desert View Watchtower (MST) Arrive Ten-X (Kalbab NF) campground, south of Tusayan. Group sites through the gate to right of 1630 campground host.	lecture	0.5).5	
	1700 Dinner; pack lunches for tomorrow 1830 Lecture Grand Canyon geology also cover hiking safety, hydration, hyponutremia. For hike: no sandals, must have at least 2L of water (use one bottle for gatorade), must have a hat and coverage for neck. Pack clean clothes & shower stuff for after hike.	lecture	1				
19 All times MS1	Grand Canyon Mapping. (All times MST) 430 Breakfast (lunches packed last night) 500 Leave camp 530 Arrive at Bright Angel Trailhead around sunrise 600 Start mapping 1000 Three Mile House (complete mapping here) 1100 Start return, those going to Indian Gardens should be there.	field activity (instructor-led)	2.5	2.5			
	1200 Those going to Indian Gardens should be back at three mile house. Trip leader ALWAYS! in front.						
	 1300 Direct hikers back to Bright Angel Lodge; a van-full can head to showers in Mather Campground 1400 Indian Garden hikers should be above mile and a half house 1500 All hikers should be out and headed for showers. 1600 Most should be on way to camp, last hikers may be at showers. 1700 Dinner 1830 Instructions for geologic map completion 	lecture	1				
20	Day off Flagstaff						
21 All times MST	ASSIGN PAPER: Desert plant adaptations 530 Breakfast (bags to truck at 0515) 630 depart Grand Canyon overlook stops (Grandview, Lipan); lecture GC environmental issues (air quality, U mines,						
	700 water quality) 830 Little Colorado gorge overlook (9.4 miles west on SR 64 from US Highway 89)	lecture				1	
	Lecture - global carbon cycling free time for jewelry/pottery shopping 1100 Cameron gas stop (CameronTrading Post)	lecture	1				
	lecture - Navajo/Hopi 1215 leave Cameron for Page via US89	lecture					1
	1345 arrive Glen Canyon Dam visitor center (tour scheduled for 1415 MST, must arrive 30 mins early)	visitor center		0.25		0.25	
	Do not bring bags, food, or anything to drink other than water (camera, clear water bottle, wallet, cell phone ok). Water fountains are not working in the Visitor Center this year, so bring water! 1600 arrive camp Wahweap 1700 Dinner 1830 swimming, laundry, complete maps	guided tour	0.75		0.	75	
22 all times MDT							
	600 (500 MST) Breakfast (bags to truck 545); turn in GC maps 700 (600 MST) depart camp						
	arrive Grand Staircase entrance at Cottonwood Canyon Road (17.7 miles from AZ/UT border, about 10.5 730 miles west of Big Water)	lecture	0.5).5	0.5

	head N toward Bryce via Cottonwood Canyon Rd through Grand Staircase-Escalante National		1				l l	1
	Monument (est 1996 by Clinton & was very contentious; first nat monument run by BLM)							
	930 hike Cottonwood Narrows slot canyon (3.5 mile loop or leave 1 van at southern trailhead parking area) The southern trailhead is 24.4 miles up Cottonwood Canyon Rd (CCR) from US-89 (northern trailhead is	field activity (instructor-led)	1		1			
	1 mile further). Set your odometer!!							
	1200 Cannonville GSENM visitor center (closed Mon and Tues), brief stop							
	1330 arrive Bryce - hike Navajo Trail (1.3 mi loop from Sunset Pt) (note paleosols)	lecture and field activity (instructor-led)	1	1				
	1530 Bryce Canyon visitor center	visitor center		0.25		0.25		
	1600 depart for Zion							
	1700 Mt Carmel Junction (gas)							
	1800 arrive campground (Watchman campground in Zion NP) 1830 dinner (make lunches for tomorrow - pack plenty for long hiking day)							
	1930 LECTURE (ECOLOGY): Fossil and Renewable Energy Resources				4			
	Instructions for measuring stream discharge		0.5		1			
	divide into stream gauge/hiking teams for tomorrow		0.5					
23	Zion Canyon. (All times MDT)							
	Student teams complete assigned GEOL and ECOI focus questions at various locations in the canyon.							
	Completion of Virgin River discharge measurement by each team required.							
	Sandals not recommend for Narrows hike. Hiking shoes work well. Keep cameras etc in waterproof containers							
	500 Breakfast							
	530 walk to visitors center for shuttle							
	600 shuttle service starts up canyon	field activity		2.5		2.5		
	1600 last hiker boards shuttle back to camp	Heid activity		2.5		2.0		
	1700 Arrive in camp.							
	1800 Dinner							
	1900 Exam review		0.25		0.25		0.25	
			0.20		0.20		0.20	
24 MDT->PDT	Exam 2, drive to Las Vegas (gain 1 hr in Nevada)							
	For power plant tour today: students need to wear power plant appropriate clothes and solid shoes							
	which means no open-toed shoes, no flip flops; no shorts. Short-sleeved shirts are A-OK 630 Breakfast (bags to truck at 0615)							
	730 EXAM 2				4			
	1045 depart camp (check out time is 11am)		1		1		1	
	brief stop LaVerkin Overlook to discuss Hurricane Fault (western boundary of CO Plateau)		0.5					
	1115 head toward St. George and Las Vegas		0.5					
	1130 (PDT) enter Nevada, gas stop in Mesquite							
	rioo (i bi) onto riordad, gao dap in modano							
	1245 (PDT) arrive Harry Allen Generating Station for tour (tour scheduled 1pm PDT with plant manger)	guest lecture and guided tour	1.5		1.5			
	Take exit 64, to US-93/Great Basin Highway, Go under freeway to the west; Take an immediate right on							
	a frontage road that parallels I-15 northeast; Turn left at power plant sign; Travel (carefully/slowly because	8						
	of tortoise protections) northwest for about 2 miles and follow signs to the plant. Security will							
	check you in; all bags must be left on the bus; cell phone photos and cameras are OK.							
	1600 (PDT) check into Las Vegas Hostel (check in starts 3pm)							
	park vans and truck in fenced lot adjacent to hostel. Hostel desk clerk has the key.							
	1630 (PDT) evening off (pool, dinner out, sight seeing at strip)							
	Nobody walks/explores alone. Split into groups depending on desired restaurant and sight seeing. Downtown Container Park has good meal options.							
	2200 (PDT) curfew							
25 All times PDT	Death Valley and Owens Valley (all times PDT)							
	600 Breakfast (set up in hostel kitchen), (bags to truck at 0545)							
	700 Leave camp.							
	ANTH: Assign Manzanar reading and podcast; Assign TED talk "How language shapes the way we think"							
	(pod will show up as a song in Music)	video and class discussion in van					1	
	815 Gas stop Pahrump, brief lecture on Basin&Range/Great Basin		0.5					
	ASSIGN VIDEO: Cadillac Desert I-III 1015 Badwater Basin	video and class discussion in van lecture and field activity	1		1			
			0.5	0.05	0.5	0.05		0.05
	1130 Visitors center at Furnace Creek 1230 Leave Visitors center. ASSIGN VIDEO: Cadillac Desert I-III (continued)	vistior center video and class discussion in van		0.25		0.25		0.25
	1430 Gas stop Lone Pine, Alabama Hills granite weathering	lecture and field activity (instructor led)	1		1			
	For Alabama Hills stop, head W on Whitney Portal Rd, drive 2.5 miles to Movie Flat Rd and turn right.	lecture and neid activity (instructor led)	2					
	After 1.5 miles go right at the Y in the road. There will be Natural Arch trailhead parking area immediately							
	on your left.							1
	1700 Depart for Big Pine							1
	From highway 395 in Big Pine, CA, turn west on Crocker Street, proceed 8 miles west - campground will							1
	be on your left after you have entered the forested area.							1
	1800 Arrive Big Pine Canyon, we have both Clyde Glacier and Palisade group sites							
	1830 Dinner 1930 LECTURE (ECOLOGY): Life history adaptation	lecture						1
	1990 LEGTONE (EGOLOGT). LIPHINSOLY AUAPTALION	IEGUUIE	I I	I	1.25	I	I I	I

Ancient Bristlecone Pines, Manzanar							
600 Breakfast (bags to truck 615) Make lunches						1	
700 Leave camp. ASSIGN VIDEO: Living History The Ancient Bristlecone Pine	video and class discussion in van			0.5			
815 Ancient Bristlecone Pine Forest (visitor center open daily 10am-4pm)							
ECOLOGY: Discuss organismal life history traits - longevity	lecture			1			
Geology: Topographic maps	lecture	0.75		'			
hike Discovery Trail (1 mile loop) (or Methuselah Trail (4 mile loop) if time) (could also add Cabin loop	locture	0.75					
1000 trail), topo map exercise	field activity		1		1		
200 Bristlecone visitor center	tour				0.25		
1230 depart for Manzanar	(our				0.20		
Manzanar National Historic Site (open daily 9-4:30), 5001 Highway 395							
1300 Independence, CA 93526		1.5		1.5			
video, museum, driving tour of grounds, discussion	instructor-led tour, discussion					2.	5
1600 depart for camp						2	.0
Assign video: A Place Without People	video and class discussion in van						1
1730 Arrive Mammoth Lakes Campground. From US 395, take California route 203 toward Mammoth Lakes.							
1800 dinner							
1930 lecture on regional geology, geothermal energy; ASSIGN PAPERS: California water crisis students could pack bathing suit, towel for dip in Mono Lake	lecture	1.25					
statento cona peor batting suit, tower for up in mono care							
Mono Lake, Mammoth Geothermal Plant 630 Breakfast							
730 Leave camp						1	
	quest leature and quided to un	0.5		4.5		1	-
815 arrive Mono Lake South Tufa area, meet ranger for tour (tour time set for 830)	guest lecture and guided tour	0.5		1.5		0.9	5
Navy Beach for a swim, if time						1	
1100 Mono Lake visitor center - ECOLOGY: Endangered Species Act and Watershed Conservation	visitor center		0.25		0.25	1	0.2
1200 depart for Mammoth							
1245 Stop at Obsidian Dome, lecture	lecture, field activity	1				1	
Mammoth Pacific Geothermal tour (Cheryl Eanes <ceanes@ormat.com>; 760-934-4893x44770) (Jct Old</ceanes@ormat.com>							
Hwy 395 & Hwy 203 - can see plant from 203 - turn L on Antelope Springs, then R on Casa Diablo. Go to 1415 metal bldg on R)							
1415 metal bldg on R)	guest lecture and guided tour	1		1		1	
1630 return to camp						1	
1700 early dinner							
Lookout Mountain for view of Long Valley, lecture, obsidian collecting. Directions here: 1830 https://volcanoes.usgs.gov/volcanoes/long_valley/long_valley_sub_page_18.html	lecture						
uoo mups.//voicanoes.usgs.gov/voicanoes/iong_valley/iong_valley_sub_page_ro.ntitmi	iectule	1					
			1	1	1	1	1
Day off Mammoth Lakes							
Day off Mammoth Lakes Olmsted Point, Tuolomne Grove hike							
Olmsted Point, Tuolomne Grove hike							
Olmsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615)							
Olmsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite	video and class discussion in vans	0.75					
Olmsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers	video and class discussion in vans	0.75					
Olmsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite	video and class discussion in vans	0.75					
Omsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift,		0.75		0.5			
Olimisted Point, Tuolomme Grove hike G30 Breakfast (bags to truck at 0615) T30 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers G30 Gas stop Lee Vining (Tloga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olimisted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, g30 glaciation) hike up slope on N side of road - observe/sketch textural features of granite	video and class discussion in vans lecture and field activity (instructor-led)	0.75 2		0.5			
Olmsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation)		0.75 2		0.5			
Offinite description Official	lecture and field activity (instructor-led)	0.75 2		0.5			
Olmsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) hike up slope on N side of road - observe/sketch textural features of granite and evidence of glaciation Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 230 and slope conditions here to east side of Sierras; discuss ecology of giant sequoias		0.75		0.5	2		
Offinited Point, Tuolomne Grove hike Official Stream Stre	lecture and field activity (instructor-led)	0.75 2		0.5	2		
Offinited Point, Tuolomne Grove hike Official Stream Stre	lecture and field activity (instructor-led)	0.75 2		0.5	2		
Olmsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) hike up slope on N side of road - observe/sketch textural features of granite and evidence of glaciation Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 230 and slope conditions here to east side of Sierras; discuss ecology of giant sequoias 630 Leave for camp. 700 Arrive in camp, Lone Pines Stanislaus NF. 730 Dinner (pack lunches for early hike tomorrow)	lecture and field activity (instructor-led)	0.75		0.5	2		
And the set of th	lecture and field activity (instructor-led)	0.75 2		0.5	2		
Offinisted Point, Tuolomne Grove hike Office Offic	lecture and field activity (instructor-led)	0.75 2		0.5 2 1	2		
 Olmsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tloga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 30 glaciation) 700 glaciation Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 230 and slope conditions here to east side of Sierras, discuss ecology of giant sequoias 630 Leave for camp. 700 Arrive in camp. Lone Pines Stanislaus NF. 730 Dinner (pack lunches for early hike tomorrow) LECTURE (ECOLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 900 energy-food nexus 	lecture and field activity (instructor-led)	0.75 2		0.5 2 1	2		
Anset Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) hike up slope on N side of road - observe/sketch textural features of granite and evidence of glaciation Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 230 and slope conditions here to east side of Sierras; discuss ecology of giant sequoias 1630 Leave for camp. 700 Arrive in camp, Lone Pines Stanislaus NF. 730 Dinner (pack lunches for early hike tomorrow) LECTURE (ECOLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 900 energy-food nexus Yosemite Valley	lecture and field activity (instructor-led)	0.75		0.5	2		
Anset Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) hike up slope on N side of road - observe/sketch textural features of granite and evidence of glaciation Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 230 and slope conditions here to east side of Sierras; discuss ecology of giant sequoias 1630 Leave for camp. 700 Arrive in camp, Lone Pines Stanislaus NF. 730 Dinner (pack lunches for early hike tomorrow) LECTURE (ECOLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 900 energy-food nexus Yosemite Valley	lecture and field activity (instructor-led)	0.75		0.5 2 1	2		
Order State Order Sta	lecture and field activity (instructor-led)	0.75 2		0.5	2		
Omsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) 111 Pointe - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) 122 Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 1230 and slope con N side of road - observe/sketch textural features of granite 1240 and slope conditions here to east side of Sierras; discuss ecology of giant sequoias 1340 Leave for camp. 1340 Dinner (pack lunches for early hike tomorrow) 1450 LECTURE (ECOLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 1450 energy-food nexus 1450 Freakfast 1500 Leave camp 1450 Glacier Point Cvertook - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers)	lecture and field activity (instructor-led)	0.75		0.5	2		
Omsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Oimsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 1230 and slope conditions here to east side of Sierras, discuss ecology of giant sequoias 1630 Leave for camp. 1700 Arrive in camp, Lone Pines Stanislus NF. 1730 Dinner (pack lunches for early hike norrow) LECTURE (ECOLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 1900 energy-food nexus Yosemite Valley 415 Breakfast 500 Leave camp Glacier Point Overlook - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers 1900 take vans to Yosemite Village or Happy Isles)	lecture and field activity (instructor-led)	0.75 2		0.5	2		
Ornsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd): proceed on Tioga Rd into Yosemite Oimsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) hike up sope on N side of road - observe/sketch textural features of granite and evidence of glaciation Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 230 and slope conditions here to east side of Sierras; discuss ecology of giant sequolas 630 Leave for camp. 740 Arrive in camp, Lone Pines Stanislaus NF. 750 Dinner (pack lunches for early hike tomorrow) LECTURE (ECCLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 940 energy-food nexus Yosemite Valley 415 Breakfast 500 Leave camp Glacier Point Overlook - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers 710 take vans to Yosemite Village or Happy Isles)	lecture and field activity (instructor-led)	0.75 2 1		0.5	2		
Onseted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Oimsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 1230 and slope cond hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 1230 and slope conditions here to east side of Sierras; discuss ecology of giant sequoias 130 Leave for camp. 1700 Artive in camp. Lone Pines Stanislus NF. 1730 Dinner (pack lunches for early hike tomorow) LECTURE (ECOLOGY) - California's Water Crisis; papers, Water Footprint, Yosemite's Twin, water- 1900 energy-food nexus Yosemite Valley 415 Breakfast 150 Leave camp Glacier Point Overlook - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers 100 take vans to Yosemite Village or Happy Isles) 11 hike Panorama Trial to Illiouette, Nevada, Vernal Falls (8.3 mi one-way) - observe current predominant 12 (post-glacial) erosional processes (have hikers wai/Twoin cans ta trial junctions to keep group together and 12 together and 13 together and 14 together and 15 together 15 together and 15 together 15 together 15 togethe	lecture and field activity (instructor-led) lecture and field activity (instructor-led)	0.75		0.5	2		
Outside Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tlooga Gas Mart on Tioga Rd): proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 1230 and slope conditions here to east side of Sierras; discuss ecology of giant sequoias 1630 Leave for camp. 1700 Arrive in camp, Lone Pines Stanislaus NF. 1730 Dinner (pack lunches for early hike tomorow) LECTURE (ECOLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 1900 energy-food nexus Yosemite Valley 415 Breakfast 500 Leave camp Glacier Point Overhok - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers 700 take vans to Yosemite Village or Happy Isles) hike Panorama Trail to Illiouette, Nevada, Vernal Falls (8,3 mi one-way) - observe current predominant 100 of discuss)	lecture and field activity (instructor-led)	0.75	1.5	0.5 2 1	2		
Ounsted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tloga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, gal glaciation) Thike up slope on N side of road - observe/sketch textural features of granite and evidence of glaciation Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 1230 and slope conditions here to east side of Sierras; discuss ecology of glant sequoias 1630 Leave for camp. Troutomer (pack lunches for early hike tomorrow) LECTURE (ECOLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 1900 energy-food nexus Yosemite Valley Yasemite Valley His Panorama Trail to Illiouette, Nevada, Vernal Falls (8.3 mi one-way) - observe current predominant (post-glacial) erosional processes (have hikers wait/meet at trail junctions to keep group together and 30 discuss)	lecture and field activity (instructor-led) lecture and field activity (instructor-led) lecture and field activity (instructor-led) field activity (instructor-led)	0.75 2 1 1		2			
Oursted Point, Tuolomne Grove hike Bit	lecture and field activity (instructor-led) lecture and field activity (instructor-led)	0.75 2 1 1	1.5 0.25	2	2 1.5 0.25		
Orsenite Valley Visemite Valley Visemite Village - visitor center and museum; focus on exhibits related to human history in Yosemite	lecture and field activity (instructor-led) lecture and field activity (instructor-led) lecture and field activity (instructor-led) field activity (instructor-led)	0.75 2 1 1		2			
Orsemite Valley Vosemite Valley Vosemite Valley Vise Controls - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers Yosemite Valley Vise Controls - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers Yosemite Valley Vise Controls - sketch glacial erosional features; Vosemite Valley Vise Controls - sketch glacial erosional features; Vosemite Valley Vise Controls - sketch glacial erosional features; Vosemite Valley Vise Point Controls - sketch glacial erosional features; Vosemite Valley Vise Point Controls - sketch glacial erosional features; Vise Point Controls - sketch glacial erosional features; Visemite Valley Vise Point Controls - sketch glacial erosional features; Visemite Valley Vise Point Controls - sketch glacial erosional features; Vise Point Controls - sketch glacial erosional features; Visemite Valley Vise Point Controls - sketch glacial erosional features; Visemite Valley Vise Point Controls - sketch glacial erosional features; Vise Point Controls - sketch glacial erosional processes (have hikers wail/meet at trail junctions to keep group together and Visemite Village - visitor center and museum; focus on exhibits related to human history in Yosemite depart for c	lecture and field activity (instructor-led) lecture and field activity (instructor-led) lecture and field activity (instructor-led) field activity (instructor-led)	0.75 2 1 1		2			
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Oursted Point, Tuolomne Grove hike 630 Breakfast (bags to truck at 0615) 730 Leave camp for Yosemite ASSIGN VIDEO: Earth Revealed Glaciers 830 Gas stop Lee Vining (Tlooga Gas Mart on Tioga Rd): proceed on Tioga Rd into Yosemite Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, 930 glaciation) hike up stope on N side of road - observe/sketch textural features of granite and evidence of glaciation Tuolomne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate 1200 and slope conditions here to east side of Sierras; discuss ecology of giant sequoias 1630 Leave for camp. 1700 Arrive in camp, Lone Pines Stanislaus NF. 1730 Dinner (pack lunches for early hike tomorrow) LECTURE (ECCLOCGY) - California's Water Crisis: papers, Water Footprint, Yosemite's Twin, water- 1900 energy-food nexus Vosemite Valley 415 Breakfast 500 Leave camp Glacier Point Overhook - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers 1700 take vans to Yosemite Village or Happy Isles) 1800 pays the Joint Source of Happy Isles) 1800 eavies 1800 arrive happy lales trailhead in valley; take shuttle to Yosemite Village 1830 discuss)	lecture and field activity (instructor-led) lecture and field activity (instructor-led) lecture and field activity (instructor-led) field activity (instructor-led)	0.75 2 1 1		2		1.	5

630 Breakfast (bags to truck at 0615)	1			1 1			
730 Lecture - west coast tectonics and geology of the gold rush	lecture	1					
830 depart							
900 Coulterville-Mariposa Mother Lode roadcuts (mariposite, serpentine) (budget 1hr for stops, 1 hr for drive) field activity (instructor-led)	1					
100 head west from Mariposa (get gas, coffee in Mariposa)	, dourty (mon dotof-lod)	'					
1230 stop fruit stand near Manteca, discuss water issues, subsidence	lecture	0.75		0.5		0.25	
1700 arrive Olema Campground	lecture	0.75		0.5		0.25	
1800 Dinner							
1930 Lecture - wrap up CA water & prepare for intertidal project							
1950 Lecture - wrap up CA water & prepare for intentidal project				1.5			
Point Reyes NS- Miwok village, McClure's Beach							
630 breakfast							
730 depart							
830 McClure's Beach - Coastal Processes Exercises (Erosion, Rock Intertidal/Competition, Ocean currents)	lasture and field activity (instructor lad)						
Chimney Rock and Lighthouse (The stairs leading down to the Lighthouse, the exhibits in the lower	lecture and held activity (instructor-led)	0.5		1.5	2		
Lighthouse chamber, and the Equipment Building are only open (weather permitting):							
I 300 Fridays through Mondays from 10 am to 4:30 pm)	lecture and field activity (instructor-led)	0.75		0.5			
1400 South or North Beach (high energy beach)							
1500 Bear Valley Visitors Center (opens 9AM on weekends and holidays, 10AM weekdays)	visitor center		0.25		0.25		0.2
1600 Earthquake Trail and Miwok Village (Kule Loklo Trail) Hikes	lecture and field activity (instructor-led)	0.5				0.5	0.1
1700 return to camp	,, -,	0.0				0.0	
1800 dinner							
1930 lecture - earthquakes, seismicitiy	lecture	1					
wrap up intertidal zone exercise				0.5			
				0.5			
Muir Woods, San Francisco Bay area geology							
600 breakfast, make lunch							
700 depart							
800 Muir Woods (parking reservation is for 8am - parking passes in van folders)	guest lecture, tour			2	1		
I200 Mussel Rock landslide	lecture and field activity (instructor-led)	1.5					
1300 Twin Peaks if weather clear OR Marina Green	,,,,	0.5					
1400 Battery Spencer chert outcrop	lecture and field activity (instructor-led)	0.5					
1445 Marin Headland Visitor Ctr (Open Daily - 9:30 AM to 4:30 PM)	visitor center	0.0			0.25		0
1600 pillow basasit outcrop near Pt Reves Station	lecture and field activity (instructor-led)	1			0.20		0
1700 return Olema campground		'					
1800 dinner							
1930 lecture - seismic building codes; hazard map assignment (due in AM)		1					
Announce dress code for Saturday. Must wear boots and long pants for quarry tour							
Day off San Francisco							
Oroville, drive to Tulelake							
630 Breakfast (bags to truck 615); make lunches							
Must wear boots and long pants for quarry tour							
730 leave camp							
ASSIGN VIDEO: Endangered Species Act	video and class discussion in van				0.75		
1030 Arrive Oroville							
Table Mountain Quarry 2216 Table Mountain Blvd Oroville, CA 95966 Phone: 530-534-4517	guided tour	1.25		1.25			
1300 Depart for camp							
1700 Arrive in camp (Hawks Nest, Tulelake, CA)							
1800 dinner							
1930 lecture: Cascade volcanics		1.25					
Love Rede NM							
Lava Beds NM 630 Breakfast; Make lunches							
730 Leave Camp							
730 Leave Camp Head N on CA 139, in Tulelake turn L on Volcanic Legacy Scenic Hwy. At dead end, turn L. Visitor Ctr of R.	on						
к. 815 Tule Lake/Klamath Basin Wildlife Refuge - lecture	lecture			1			
Wildlife Refuge visitor center (The center is open seven days a week, 9:00 am - 4:00 pm, phone: (530)							
667-2231)	visitor center				0.5		
Captain Jack's Stronghold (Ranger led tour scheduled for IFP at 10am), 0.5mi inner loop or 1.5mi outer							
1000 loop	guided tour					1.5	
1200 Schonchin Butte (0.7 mi hike up) - geologic overview, fire ecology lectures	lecture	0.75		0.75			
1400 Lava Beds visitor center and explore select lava tubes (Cave Loop Road)	visitor center and field activity		1.5		1.5		
1730 Return to camp (Hawks Nest, Tulelake, CA)							
1800 Dinner							
930 LECTURE (ECOLOGY) - Population Ecology Reminder to pack a bathing suit for tomorrow!	lecture			1.5			

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37	Crater Lake NP							
	630 Breakfast (bags to van at 0615); Make lunches							
	730 Leave Camp							
	830 gas stop - Pilot on 97N just after Klamath Falls							
	1015 Arrive Crater Lake Rim Village - visitor center	visitor center		0.25		0.25		0.25
	Crater Lake lectures - Native American belief&ceremony, Mazama geology	lecture	0.5				1	
	1300 Hike Cleetwood Trail to lake shore (trailhead 4.5 miles east of North Junction) observe/sketch/describe volcanics along trail	field activity						
	Lake ecology lecture	lecture		1	1			
	1500 Be at vans to leave for camp	lecture			'			
	1730 Arrive in camp (Tumalo State Park)							
	1800 Dinner							
	1900 Exam review		0.25		0.25		0.25	
38	Exam 3, Warm Springs Museum							
	630 Breakfast (bags to van at 0615); Make lunches							
	730 Exam 1100 Depart - Head N on Hwy 97 past Redmond and Madras to Warm Springs.		1		1		1	
	1100 Depart - riead in on riwy 97 past reditiond and madras to warm Springs.							
	Warm Springs Museum (Anthropology) OPEN Tuesday - Saturday 9 am - 5 pm CLOSED Sunday and							
	1200 Monday Pay entrance fees etc on arrival. This is a tribal owned and managed museum. 541-553-3331	guided tour					2	
	1415 Depart - Head N on Hwy 97 past Redmond and Madras to Warm Springs. 1645 arrive Battleground Lake SP							
	1700 Early Dinner, pack breakfast and lunch for next day							
	1830 all vans depart for Climber's Bivouac (leave truck in Battle Ground)							
	1945 arrive bivouac							
39	Mount St. Helens hike							
	500 Wake, dress, eat breakfast							
	530 Begin on Ptarmigan Trail to Monitor Ridge	field activity		4				
	1500 Complete hike 1600 recovery time, return to camp at Battle Ground Lake							
	1800 dinner							
	1930 no lecture tonight							
	-							
40	Day Off Portland							
41	Johnston Ridge, Toutle River							
	630 breakfast, make lunch							
	800 depart for Spirit Lake Hwy (Hwy 504, exit 49 from I-5)							
	900 MSH Visitor Center at Silver Lake (WA State Parks facility) \$5/person, open daily 9-5	lecture and visitor center (instructor-led)	2					
	1130 Johnston Ridge Visitor Center (USDA facility) \$8/person	visitor center		2				
	1400 Hummocks Trail (2.3 mi loop)	lecture and field activity (instructor-led)			2.5			
	1730 Return to camp 1800 Dinner							
	1930 Lecture - ecological succession	lecture			1.25			
	····				1.20			
42	drive to Olympic Peninsula							
	630 breakfast, make lunch (bags to truck 615)							
	assign geology readings on volcano and EQ hazards of PNW							
	730 soil lecture and exercise in camp 1000 depart	lecture and instructor-led field activity			2.5			
	1200 Mima Mounds	instructor-led field activity	0.75		0.75			
	1400 Squaxin Island Museum	guest lecture and guided tour	0.75		0.75		2	
	1600 depart	5 5					2	
	Anth: Assign Makah video; Oldham Makah Whaling	video and class discussion in van					0.5	
	1800 arrive camp Kalaloch (Olympic NP)							
	1830 dinner							
	1930 lecture - tribal sovereignty and cultural preservation	lecture					1.25	
43	Olympic National Park, Makah Museum							
40	630 breakfast, make lunch							
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	head to Ruby Beach, Geology hazards discussion, assign readings/video on Columbia River and basalts,		1		1	1	1	1	1		1
	730 Channeled Scablands	lecture and field activity (instructor-led)	1			1					
	1000 depart for Neah Bay										
	1200 Makah Museum	guided tour							2		
	1430 Cape Flattery Trail	field activity		0.5			0.5		-	0.5	5
	1600 depart										-
	1800 return to camp										
	1830 dinner										
	1930 Geology lecture - large igneous provinces, flood basalts		1.25								
44	Hoh River Rain forest										
	630 breakfast, make lunch (bags to truck 615)										
	Assign Gravlee and Holmes readings (Medical Anthropology; Food & Ag Systems)										
	730 depart										
	830 Hoh River Rain forest (hike and visitor center)	lecture and field activity (instructor-led)				3					
	Hike loops: Hall of Mosses (0.8mi) and Spruce Nature Trail (1.2mi)										
	1200 depart										
	Assign video: Food Chains	video and class discussion in vans							1.5		
	1600 arrive Riverbend Campground (1040 Clubhouse Ln SE, Olympia, WA 98513) - showers and laundry										
	1800 dinner										
	1930 ANTHRO LECTURE Social sustainability of Ag & Food Systems	lecture							1.25		
	······································								1.20		
45	Drive to Spokane, Palouse Country										
45	630 Breakfast (bags to truck at 0615); Make lunches										
	730 Leave camp (I-5N to I-90E)										
	900 Stop at Snoqualmie Pass rest stop (Red Mtn Coffee) EXIT 53 on I-90 East										
	Assign video: "Nova - Mystery of the Megaflood"	video and class discussion in vans	1								
	1045 gas stop in Kittitas, fruit stand (discuss glacial soils & irrigation in eastern WA) EXIT 115, on N side of I-90	lecture				0.5			1		
	1040 gas stop in rutatas, nut stand (discuss gladiar solis of ingation in caston wwy) Extr. 110, on wiside of 150					0.5					
	1300 Dry Falls State Park or Palouse Falls State Park (Lake Missoula Flood)	lecture and field activity (instructor-led)	1								
	1000 Dry Fails Glate Fails of a locate Fails Glate Fai	locare and field delivity (instructor-loca)	'								
	1530 Palouse soil sampling stop	last we and field asticity (instruction last)									
		lecture and field activity (instructor-led)	0.5			1.5					
	1730 Arrive in camp (Riverside SP, Bowl and Pitcher Area)										
	1800 Dinner										
	1900 lecture: stream ecology	lecture				1					
	2000 complete soil analyses						1				
46	Spokane River water quality project										
	630 breakfast										
	730 lecture: water quality chemistry		0.5			0.5					
	900 tour at Spokane River WWTP	guided tour	1.25			1.25					
	1130 upstream and downstream sampling and testing	field activity (instructor-led)	1.25	1.25		1.25	1.25				
	1630 time to write up results										
	1800 Dinner										
	1930 wrap-up and discuss results		0.75			0.75					
47 PDT ->MDT	drive to Glacier, St. Ignatius										
	600 breakfast (bags to truck 545)										
	700 leave camp										
	Assign video: "Nova Origins - Earth is Born"	video and class discussion in van	1								
	Assign video: "Nova Origins - How Life Began"	video and class discussion in van	'			1					
	ASSIGN PAPER: Climate Change Modeling	Video and class discussion in van				1					
		field activity (instructor-led)									
	830 Fourth of July soils stop	neid activity (instructor-led)				1.5					
	1000 (MDT) enter Montana and Mtn Time Zone										
	1030 (MDT) Gas stop St Regis Travel Ctr (I-90E exit 33)										
	(MDT) Hwy 93N: Stop in St. Ignatius (Flathead Indian Reservation) Mission and site of former Catholic	tour									_
	1145 boardings school	tour								0.5	5
	Anth Lecture: Health disparities & Political ecology	lecture							1		
	1330 Three Chiefs Culture Center	guided tour and guest lecture							2		
	1530 (MDT) Depart for camp										
	1730 (MDT) arrive camp Glacier Campground, West Glacier										
	1800 (MDT) dinner (and prep lunches for tomorrow)										
			•		-	•	•	-			

	1930 (MDT) lecture - supercontinent cycle, early Earth		1		I			I	1	1
48 all times MDT	Glacier hike 530 breakfast									
	615 leave camp for Logan Pass									
	715 park vans at Logan Pass									
	745 Start hike on Highline Trail from Logan Pass (relatively flat trail)									
	Field notebook assignment - observe rock types and sedimentary structures along trail	field activity		2						
	1000 Stop 3.1 miles (before trail climbs to Haystack Pass) for lecture on stromatolites, early earth atmosphere After lecture, allow students to hike as far as they want. One way distance from Logan Pass: 6.9mi to junction with Garden Wall Trail, 7.6 mi to Granite Park Chalet (15.2 roundtrip), 7.75 mi to Grinnell Glacier Overlook via Garden Wall Trail (15.5 roundtrip)		1							
	Field notebook assignment for return - observe montane plant/animal adaptations	field activity					2			
	1300 Turn around time 1700 Last hikers back at Logan Pass visitor center, depart for camp									
	1800 dinner									
	1930 Ecology lecture Discuss Adapt West EcoRegion Climate Projections					1.25				
49	Browning, drive to Bozeman									
	615 breakfast (bags to truck 600)									
	715 Anthropology lecture - mapping key concepts 815 depart for Browning							1		
	900 Museum of the Plains Indian (9am-4:45pm, Tuesday through Saturday, Closed Sunday and Monday) 1130 Blackfeet Heritage Center (open daily 10-4), meet Ernie HeavyRunner 1300 Depart for Bozeman	guided tour guest lecture & tour						2 1	0.5	5
	ASSIGN VIDEO: Climate Change: How do we know we aren't wrong (Podcast)	video and class discussion in vans	0.5			0.5				
	ASSIGN VIDEO: Rachel Carson American Experience	video and class discussion in vans				2				
	1730 Arrive camp - Hood Creek (on Hyalite Reservoir in Gallatin NF)									
	1800 dinner 1930 LECTURE (ECOLOGY): Climate Change (models, assisted migration) ASSIGN PAPER: Yellowstone and wolves	lecture	0.5			1				
50	Day off Bozeman									
51	Yellowstone 615 Breakfast (bags to van at 600); Make lunches									
	715 leave camp ANTH: Assign short Yellowstone reading (Rogers 2016) & videos: Unnatural Histories: Yellowstone and How wolves can change rivers	videos and class discussion in vans						1.5	1	
	945 Earthquake Lake/Hebgen Lake 1200 West Yellowstone Entrance	lecture and field activity (instructor-led)	2							
	1300 Norris Geyser Basin	lecture and field activity (instructor-led)	1			1				
	1500 Mammoth Hot Springs 1730 arrive camp Mammoth Campground	lecture and field activity (instructor-led)	1.25			1.25				
	1800 dinner 1930 LECTURE (ECOLOGY): Yellowstone wolf reintroduction paper discussion	lecture				1		0.5	1	
52	Yellowstone to Tetons 615 Breakfast (bags to van at 0600); Make lunches 715 leave camp									
	900 Canyon Village (Visitor Center, Inspiration Point)	visitor center		0.5			0.5		0.5	5
	1100 Sulfur cauldron and mud volcano 1230 Old Faithful	lecture and field activity (instructor-led)	0.5			0.5				
	1330 Grand Prismatic spring	lecture and field activity (instructor-led)	0.5			0.5				
	1600 Signal Mountain	lecture	1							
	1830 arrive camp (Gros Ventre)									
	1900 dinner 2000 make lunches for hike tomorrow									
	2000 make lunches for hike tomorrow									
53	Cascade Canyon 500 Breakfast, pack lunches (packed last night)									
	500 breaklast, pack lanches (packed last hight) 545 hikers leave camp									
	615 arrive Jenny Lake, lecture and notebook assignment	lecture	0.25			0.25		l		I

	Jenny Lake shuttle (runs 7am – 7pm, \$15 roundtrip) - take shuttle to Cascade Canyon and hike to										
	Inspiration Point and up Cascade Canyon (optional hike to Lake Solitude) NOTE: If arriving in time for										
	700 7AM shuttle and paying CASH the rate is \$5/person. Jenny Lake Boating 307-734-9227	field activity		2			2				
	Cascade Canyon hike from shuttle dock: 4.8mi one-way to Cascade Canyon fork; 7.5mi one-way to Lake Solitude. Round-trip to Lake Solitude from shuttle is 15 miles										
	1500 last hikers should be in line to board return shuttle boat										
	1600 rest of day off in Jackson (Drop off and park in lot at N Cache and Gill)										
	1800 purchase dinner in Jackson (Pinky G's Pizza?)										
	2000 return to camp										
54	Tetons to Dinosaur										
54	600 Breakfast (bags to van at 0545); Make lunches										
	700 leave camp										
	730 Gas stop Hoback Junction										
	Assign video: Mass Extinction	video and class discussion in vans	1								
	Green River overlook stop at Warrenton Bridge campground and picnic area (lecture on wildlife migration 900 and conservation efforts)	lecture	0.05			1			0.05		
		video and class discussion in vans	0.25			2			0.25		
	1330 Gas stop Sinclair WY/UT state line					2					
	1400 drive Sheep Creek Canyon loop (south of Manila, UT), stop at Uinta fault	lecture	1								
	1730 arrive camp										
	1800 dinner										
	1930 prepare for mapping exercise (review stratigraphy etc)		1.5								
55	geologic mapping project										
55	600 Breakfast, make lunches										
	700 leave camp for map area										
		lecture and field activity (instructor-led)	6								
	1330 complete mapping										
	1400 Visitor center and dino quarry exhibit 1600 return to camp	visitor center and exhibit		1.5							
	1800 dinner										
	1930 instruction for completing maps (due in AM)		0.75								
56	Piceance Basin										
	615 Breakfast (600 bags to truck); make lunches										
	715 Geology & Ecology lecture: the sixth extinction 815 Anthropology lecture: social inequality	lecture	0.5			0.5			1		
	o to Printinopology locate. Social inequality										
	930 brief stop petroglyphs	lecture and field activity (instructor-led)							0.75		
	1000 depart Dino NM										
	stop in Piceance Basin to sample/discuss oil shale (Head S on Co Rd 5 at White River City junction) 1100 (discuss conventional vs unconventional oil/gas)	lecture and field activity (instructor-led)	1.5								
	1300 gas stop Rifle	local o ana noia aounty (nonación loa)	1.0								
	1730 Arrive in Cherry Creek SP camground (Aurora, CO) - use East entrance on Parker Rd.										
	1800 Dinner										
	1900 Exam review		0.25			0.25			0.25		
57	Exam 4, day off										
57	700 Breakfast (645 bags to truck)										
	800 Exam		1			1			1		
	1200 rest of day off in Boulder (or Denver?)										
58	Denver Museum 630 take Jenn and John to airport (about 1 hr roundtrip)										
	730 Breakfast; make lunches										
	830 leave camp for Denver										
	900 arrive DMNS, paleo lab tour, public exhibits (including Prehistoric Journey)	guided tour	2	1			1			1	
	1430 depart for camp										
	1500 van and gear cleanup 1800 dinner										
	1800 dinner										
59 MDT->CDT	drive to Columbia, MO (720 mi, 11 hr est., lose 1 hr)										
	530 Breakfast (bags to van at 515); make lunches										
	630 leave camp										
	Good gas stop late afternoon exit 28 Kansas City MO at QT lots of bathrooms										
	1830 arrive camp (Cottonwoods RV Park) From I-70, Take exit 128A in Columbia, MO. Turn left onto US Highway 63 North. Go North 4 Miles to the										
	Prom I-70, Take exit 128A in Columbia, MO. Turn left onto US Highway 63 North. Go North 4 Miles to the Oakland Gravel Road Exit. Turn Right at Stop Sign at top of ramp. Go 100 feet, then turn Left onto										
	Oakland Gravel Road. Cottonwoods will be on your right hand side less than 1/2 a mile down Oakland										
	Gravel Road. 1900 eat dinner out (China Garden buffet), rest of night off										
	1900 ear uinner dur (Chillia Garden Durler), rest of hight Off										
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60 CDT->EDT drive home (735 mi, 11 hr est., lose 1 hr)	1	I	l	l i	1	1	I	I	1 1
615 bags to truck									
630 leave camp, stop for breakfast (Panera opens 5:30am)									
rest area on I64 eastbound between exits 23&27. Also nice new Loves at exit 27.									
stop for lunch break somewhere (Clarksville? Murfreesboro?)									
2100 dropoff at Perimeter Mall in Atlanta									
2300 arrive UGA campus									