

**Semester Field Study Program Information**

**Please provide the following information:**

Field Study Program Name: Interdisciplinary Field Program  
 Field Study (FSTY) Course ID: FSTY 1025  
 Field Study (FSTY) Course CRN: TBD  
 Semester Program will be Offered: Summer 2019  
 Session (Select Session that most closely aligns with program dates)\* : Thru Term  
[Click Here for Session Dates \("Classes Begin" and "Classes End"\)](#)  
 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](mailto:juliaec@uga.edu); [schroe@uga.edu](mailto:schroe@uga.edu)  
 Program Start Date (First meeting with enrolled students): 6/6/2019  
 Program End Date (Last meeting with enrolled students): 8/4/2019  
 Travel Start Date: 6/6/2019  
 Travel End Date: 8/4/2019  
 Anticipated Number of Total Students Participating in Program: 16-24  
     Anticipated Number of UGA Students: 16-24  
     Anticipated Number of Transient Students: 0-2  
 Anticipated Number of Undergraduate Students in the Program: 16-24  
     Total Number of Credit Hours Taken by Each Undergraduate Student: 9-15  
 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 Number	Credit Hours	Schedule Type	Instructor(s)	Department of Instructor(s)	Course Start Date	Course End Date	Lecture	Field/ Lab
									Class Day(s)/ Times/ (Total Number of Class Days)	Class Day(s)/ Times/ (Total Number of Class Days)
Introduction to Anthropology (Honors)	ANTH	2120H	3	Lecture	Jennifer Thompson, Jeff Speakman	Crop & Soil Science, CAIS	6/6/2019	8/2/2019	varied schedule (58 class days)	varied schedule (58 class days)
Indians of North America	ANTH	4020	3	Lecture	Jennifer Thompson, Jeff Speakman	Crop & Soil Science, CAIS	6/6/2019	8/2/2019	varied schedule (58 class days)	varied schedule (58 class days)
<i>students must choose in order to receive 3 credit hours ANTH</i>										
Ecological Basis of Environmental Issues (Honors)	ECOL	1000H	3	Lecture	John Kominoski, Kaitlin Farrell	Other Universities	6/6/2019	8/2/2019	varied schedule (58 class days)	varied schedule (58 class days)
Ecological Basis of Environmental Issues Lab	ECOL	1000L	1	Supervised Lab	John Kominoski, Kaitlin Farrell	Other Universities	6/6/2019	8/2/2019	varied schedule (58 class days)	varied schedule (58 class days)
Ecology of North America	ECOL	4160	4	Directed Study	John Kominoski, Kaitlin Farrell	Other Universities	6/6/2019	8/2/2019	varied schedule (58 class days)	varied schedule (58 class days)
<i>students must choose in order to receive 3-4 credit hours ECOL</i>										
Physical Geology (Honors)	GEOL	2350H	4	Lecture	Dvoracek, Schroeder, Milewski	CAIS, Geology	6/6/2019	8/2/2019	varied schedule (58 class days)	varied schedule (58 class days)
Historical Geology (Honors)	GEOL	2360H	4	Lecture	Dvoracek, Schroeder, Milewski	CAIS, Geology	6/6/2019	8/2/2019	varied schedule (58 class days)	varied schedule (58 class days)
Geology of North America	GEOL	4330	3	Lecture	Dvoracek, Schroeder, Milewski	CAIS, Geology	6/6/2019	8/2/2019	varied schedule (58 class days)	varied schedule (58 class days)
<i>students must choose in order to receive 3-8 credit hours GEOL</i>										

\*Please work with department schedulers and OIE to ensure that all academic courses are scheduled in the same Session as the program FSTY course.

**Please see additional spreadsheet for details**

For questions, please contact the Office of Curriculum Systems at [csfieldstudy@uga.edu](mailto:csfieldstudy@uga.edu) or 706-542-6358.









depart after final stop at visitors center (follow route to US 550, Nageezi via 7950 and 7900 (13 miles of dirt road on the way out))

gas stop Aztec (Roadrunner Fuels 800 S Main Ave, Aztec, NM 87410) - comment on San Juan Basin oil and gas  
 arrive Mesa Verde visitor center (outside park entrance); purchase tour tickets for Balcony House (more  
 1530 adventurous) or Cliff Palace (larger) visitor center (self-guided) 0.5  
 arrive Morefield group campground. Check in at store first. Then select group campsite(s) - the first two sites on  
 1600 the right work well (sites #16&17).  
 1800 dinner  
 1930 Lecture - Colorado River hydrology (Adam) lecture 1.25  
 ASSIGN PAPERS: Drying of the West, Unplugging the Colorado River

17 Tue Jun 19 **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 self-guided tour self-guided tour 0.25  
 1400 Balcony House tour (must purchase tickets in advance) ranger-led tour 0.25  
 1500 Cedar Tree Tower - hike Farming Terrace trail (0.5 mile loop) instructor led field activity 0.25  
 Park Point overlook - overview of Four Corners geology (go to right at top lookout for overlook of Mesa Verde  
 1630 canyons, Sleeping Ute, Shiprock) lecture 0.75  
 1730 Return to camp  
 1800 Dinner  
 Evening hike to Point Lookout to watch sunset (2.2 miles roundtrip from campground amphitheater parking lot);  
 1930 No lecture on top. ASSIGN PAPERS: Fossil and Renewable Energy papers.

18 Wed Jun 20 **MDT to MST Four Corners, Grand Canyon South Rim**

630 Breakfast (Bags to truck at 0615)  
 730 Leave camp  
 800 Stop at Mancos Shale just outside of park, fossil hunting & ID. (pull off in acceleration lane heading N on 160) field activity (instructor led) 1  
 900 depart for Goosenecks  
 1100 Goosenecks State Park (overlook incised meander) lecture 0.5  
 1200 head to Arizona via Monument Valley  
 1430 (MST) Grand Canyon Desert View Watchtower lecture 0.5  
 (MST) Arrive Ten-X (Kaibab NF) campground, south of Tusayan. Group sites through the gate to right of  
 1630 campground host.  
 1700 Dinner; pack lunches for tomorrow  
 1830 Lecture Grand Canyon geology lecture 1  
 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.

19 Thu Jun 21 **All times MST 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 field activity (instructor-led and self-guided) 2.5  
 1000 Three Mile House (complete mapping here)  
 1100 Start return, those going to Indian Gardens should be there.  
 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 0.5

20 Fri Jun 22 **Day off Flagstaff PICK UP MAIL TODAY Schedule vehicle servicing? Find out when they will be due.**

21 Sat Jun 23 **All times MST Grand Canyon Overlooks, Glen Canyon Dam (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, water  
 700 quality) lecture 1  
 830 Little Colorado gorge overlook (9.4 miles west on SR 64 from US Highway 89)  
 Lecture - global carbon cycling lecture 1  
 free time for jewelry/pottery shopping  
 1100 Cameron gas stop ( CameronTrading Post) lecture  
 lecture - Navajo/Hopi

	1215 leave Cameron for Page via US89							
	1345 arrive Glen Canyon Dam visitor center (tour scheduled for 1415 MST, must arrive 30 mins early) 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!	visitor center, self-guided	0.25			0.25		
	1600 arrive camp Wahweap	guided tour	0.75			0.75		
	1700 Dinner							
	1830 swimming, laundry, complete maps							
	<b>all times</b>							
22 Sun Jun 24	<b>MDT Grand Staircase, Bryce, drive to Zion (travel in Utah, return to MDT)</b>							
	600 (500 MST) Breakfast (bags to truck 545); turn in GC maps							
	700 (600 MST) depart camp							
	<b>Instructions for cook truck:</b> head through Kanab and Hurricane, UT to approach Zion NP from the SW (use Zion South Entrance to avoid tunnel). Also NOTE Zion Watchman campground may not want to let the truck into the campground due to its size (RVs not allowed). If this occurs, beg the person at the gate to let us unload the truck at the campsite and then park the truck in overflow.							
	arrive Grand Staircase entrance at Cottonwood Canyon Road (17.7 miles from AZ/UT border, about 10.5 miles west of Big Water); Meet Ken Bradshaw, Soil Scientist with GSENM (got his PHD at UGA) to discuss the monument, BLM, etc	guest lecture	0.25			0.5		0.5
	head N toward Bryce via Cottonwood Canyon Rd through Grand Staircase-Escalante National Monument (est 1996 by Clinton & was very contentious; first nat monument run by BLM)							
	<b>Cottonwood Canyon Rd is a rough 47 mile dirt road! Do not attempt if wet or rain in forecast! COOK TRUCK should NOT take this road.</b>							
	900 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 1 mile further). <b>Set your odometer!!</b>	field activity (instructor-led)	1			1		
	1130 Cannonville GSENM visitor center (closed Mon and Tues), brief stop							
	1300 arrive Bryce - hike Navajo Trail (1.3 mi loop from Sunset Pt) (note paleosols)	lecture and field activity (instructor-led)	1	1				
	1500 Bryce Canyon visitor center	visitor center (self-guided)		0.25			0.25	
	1530 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					1		
	Instructions for measuring stream discharge divide into stream gauge/hiking teams for tomorrow		0.5					
23 Mon Jun 25	<b>Zion Canyon. (All times MDT)</b>							
	Student teams allowed to choose their hike locations from these choices: Angel's Landing, Hidden Canyon, Observation Point, The Narrows; Completion of Virgin River discharge measurement by each team required. GEOL and ECOL focus questions to be assigned.							
	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 (self-guided)		2.5			2.5	
	1600 last hiker boards shuttle back to camp							
	1700 Arrive in camp.							
	1800 Dinner							
	1900 Exam review		0.25			0.25		0.25
24 Tue Jun 26	<b>MDT-&gt;PDT Exam 2, drive to Las Vegas (gain 1 hr in Nevada)</b>							
	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							
	1045 depart camp (check out time is 11am)		1			1		1
	brief stop LaVerkin Overlook to discuss Hurricane Fault (western boundary of CO Plateau) (skip if running late)							
	1115 head toward St. George and Las Vegas							
	1130 (PDT) enter Nevada, gas stop in Mesquite							
	(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 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							

Date	Time	Activity	Duration	0.25	0.5	1	1.5	2	
25 Wed Jun 27	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	video and class discussion in van		1		1		
		1000 Badwater Basin	lecture and field activity	0.5		0.5			
		1100 Visitors center at Furnace Creek	visitor center (self-guided)		0.25				0.25
		1200 Leave Visitors center. ASSIGN VIDEO: Cadillac Desert I-III (continued)	video and class discussion in van		1		1		
		1400 Gas stop Lone Pine, Alabama Hills granite weathering (if time)							
		For Alabama Hills stop, head W on Whitney Portal Rd, drive 2.5 miles to Movie Flat Rd and turn right. After 1.5 miles go right at the Y in the road. There will be Natural Arch trailhead parking area immediately on your left.							
		Manzanar National Historic Site (open daily 9-4:30), 5001 Highway 395							
		1500 Independence, CA 93526	video, museum, driving tour of grounds					2	
		1700 Depart for Big Pine	instructor-led tour						
From highway 395 in Big Pine, CA, turn west on Crocker Street, proceed 8 miles west - campground will be on your left after you have entered the forested area.									
1800 Arrive Big Pine Canyon, we have both Clyde Glacier and Palisade group sites									
1830 Dinner									
1930 LECTURE (ECOLOGY): Life history adaptation	lecture				1.25				
26 Thu Jun 28		Ancient Bristlecone Pines							
		600 Breakfast (bags to truck 615) Make lunches							
		700 Leave camp. ASSIGN VIDEO: Living History The Ancient Bristlecone Pine	video and class discussion in van				0.5		
		800 Ancient Bristlecone Pine Forest (visitor center open daily 10am-4pm)							
		ECOLOGY: Discuss organismal life history traits - longevity	lecture				1		
		hike Discovery Trail (1 mile loop) (or Methuselah Trail (4 mile loop) if time) (could also add Cabin loop trail)	field activity (self-guided)		0.5			1	
		1030 depart for Tonopah							
		arrive Crescent Dunes Solar Plant - tour scheduled for 1pm with Joe Long Plant Manager							
		1300 Mobile: 404-655-0247	guest lecture and guided tour	1.5			1.5		
		1530 depart for camp (get gas in Tonopah first)							
		Assign video: A Place Without People	video and class discussion in van					1	
		Arrive Mammoth Lakes Campground. From US 395, take California route 203 toward							
		1800 Mammoth Lakes.							
		1830 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						
27 Fri Jun 29		Mono Lake, Mammoth Geothermal Plant							
		PICK UP MAIL TODAY							
		630 Breakfast							
		730 Leave camp							
		815 arrive Mono Lake South Tufa area, meet Dave Marquart for tour (tour time set for 830) Navy Beach for a swim, if time	guest lecture and guided tour	0.5			1.5		0.5
		1100 Mono Lake visitor center - ECOLOGY: Endangered Species Act and Watershed Conservation	visitor center (self-guided)		0.25			0.25	
		1200 depart for Mammoth							
		Mammoth Pacific Geothermal tour (Cheryl Eanes <ceanes@ormat.com>; 760-934-4893x44770) (Jet Old Hwy 395 & Hwy 203 - can see plant from 203 - turn L on Antelope Springs, then R on Casa Diablo. Go to metal bldg on R)	guest lecture and guided tour	1			1		
		Horseshoe Lake if time							
		1600 return to camp							
		1700 early dinner							
		Lookout Mountain for view of Long Valley, lecture, obsidian collecting. Directions here: <a href="https://volcanoes.usgs.gov/volcanoes/long_valley/long_valley_sub_page_18.html">https://volcanoes.usgs.gov/volcanoes/long_valley/long_valley_sub_page_18.html</a>	lecture		1				
		1830							
		28 Sat Jun 30		Day off Mammoth Lakes					
29 Sun Jul 1		Olmsted Point, Tuolumne 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				
		830 Gas stop Lee Vining (Tioga Gas Mart on Tioga Rd); proceed on Tioga Rd into Yosemite							
		930 Olmsted Point - glacier lecture and geologic history of Sierra Nevada (Mz igneous arc, recent uplift, glaciation)	lecture and field activity (instructor-led)	2			0.5		



hike up slope on N side of road - observe/sketch textural features of granite and evidence of glaciation  
 Tuolumne Grove hike (1 mi hike to grove, 2+ miles roundtrip, 500' elevation loss/gain) - contrast climate and slope conditions here to east side of Sierras; discuss ecology of giant sequoias  
 1230 Leave for camp.  
 1700 Arrive in camp, Lone Pines Stanislaus NF.  
 1800 Dinner (pack lunches for early hike tomorrow)  
 LECTURE (ECOLOGY) - California's Water Crisis: papers, Water Footprint, Yosemite's  
 1930 Twin, water-energy-food nexus

lecture and field activity (instructor-led)

2  
 2  
 1.25

30 Mon Jul 2

Yosemite Valley - Glacial features, magmatic evolution  
 500 Breakfast  
 600 Leave camp  
 Glacier Point Overlook - sketch glacial erosional features; discuss granite jointing and exfoliation (drivers take  
 800 vans to Yosemite Village or Happy Isles)  
 hike Panorama Trail to Illilouette, Nevada, Vernal Falls (8.3 mi one-way) - observe current predominant (post-  
 900 glacial) erosional processes (have hikers wait/meet at trail junctions to keep group together)  
 1400 arrive Happy Isles trailhead in valley; take shuttle to Yosemite Village  
 1430 Yosemite Village - visitor center and museum; focus on exhibits related to human history in Yosemite  
 depart for camp  
 1700  
 1830 Dinner  
 1930 lecture: Environmental Anthropology

lecture and field activity (instructor-led)

1

0.5

1.5

0.5

1.5

field activity (instructor-led and self-guided)

0.25

0.25

1

lecture

1.5

31 Tue Jul 3

Western Metamorphic Belt, San Joaquin Valley  
 2018/07/03 Tue 01:53 AM 4.94 H  
 2018/07/03 Tue 09:08 AM 0.19 L  
 2018/07/03 Tue 4:17 PM 4.62 H  
 2018/07/03 Tue 9:30 PM 3.03 L  
 Tides  
 630 Breakfast (bags to truck at 0615)  
 730 Lecture - west coast tectonics and geology of the gold rush  
 830 depart  
 900 Coulterville-Mariposa Mother Lode roadcuts (mariposite, serpentine) (budget 1hr for stops, 1 hr for drive)  
 1100 head west from Mariposa (get gas, coffee in Mariposa)  
 1230 stop fruit stand near Manteca, discuss water issues, subsidence  
 send Pink or Purple van to Firestone Auto Care in San Rafael (appt at 4pm)  
 1700 arrive Olema Campground  
 1800 Dinner  
 1930 Lecture - wrap up CA water & prepare for intertidal project

lecture

1

field activity (instructor-led)

1

lecture

0.75

0.5

0.25

1.5

32 Wed Jul 4

Point Reyes NS- Miwok village, McClure's Beach  
 2018/07/04 Wed 02:43 AM 4.53 H  
 2018/07/04 Wed 09:47 AM 0.54 L  
 2018/07/04 Wed 4:56 PM 4.80 H  
 2018/07/04 Wed 10:43 PM 2.79 L  
 Tides  
 630 breakfast  
 730 depart  
 McClure's Beach - Coastal Processes Exercises (Erosion, Rock Intertidal/Competition, Ocean  
 830 currents)  
 Chimney Rock and Lighthouse (The stairs leading down to the Lighthouse, the exhibits in the  
 lower Lighthouse chamber, and the Equipment Building are only open (weather permitting):  
 1300 Fridays through Mondays from 10 am to 4:30 pm)  
 1400 South or North Beach (high energy beach)  
 1500 Bear Valley Visitors Center (opens 9AM on weekends and holidays, 10AM weekdays)  
 1600 Earthquake Trail and Miwok Village (Kule Loklo Trail) Hikes  
 1700 return to camp  
 1800 dinner  
 1930 lecture - earthquakes, seismicity  
 wrap up intertidal zone exercise

lecture and field activity (instructor-led)

0.5

1.5

2

lecture and field activity (instructor-led)

0.75

0.5

visitor center (self-guided)

0.25

0.25

0.5

0.25

lecture and field activity (instructor-led)

0.5

0.25

0.5

lecture

0.75

0.5

33 Thu Jul 5

Muir Woods, San Francisco Bay area geology  
**PICK UP MAIL TODAY Point Reyes Station**  
 2018/07/05 Thu 03:46 AM 4.12 H  
 2018/07/05 Thu 10:29 AM 0.92 L  
 2018/07/05 Thu 5:33 PM 5.03 H  
 2018/07/05 Thu 11:54 PM 2.35 L  
 Tides  
 600 breakfast, make lunch  
 700 depart  
 800 Muir Woods (parking reservation is for 8am - parking passes in van folders)  
 1200 Mussel Rock landslide  
 optional stop: Twin Peaks if weather clear OR Marina Green  
 1400 Battery Spencer chert outcrop  
 1445 Marin Headland Visitor Ctr (Open Daily - 9:30 AM to 4:30 PM)

ranger guest lecture, tour

1.5

2

1

lecture and field activity (instructor-led)

0.5

0.25

0.5

visitor center (self-guided)





45 Tue Jul 17	<p>Drive to Spokane</p> <p>630 Breakfast (bags to truck at 0615); Make lunches</p> <p>730 Leave camp (I-5N to I-90E)</p> <p>900 Stop at Snoqualmie Pass rest stop (Red Mtn Coffee) EXIT 53 on I-90 East</p> <p><b>Assign video: "Nova - Mystery of the Megaflood"</b></p> <p>gas stop in Kittitas, fruit stand (discuss glacial soils &amp; irrigation in eastern WA) EXIT 115, on</p> <p>1045 N side of I-90</p> <p>1300 Dry Falls State Park or Palouse Falls State Park (Lake Missoula Flood)</p> <p>1530 Palouse soil sampling stop</p> <p>1730 Arrive in camp (Riverside SP, Bowl and Pitcher Area)</p> <p>1800 Dinner</p> <p>1900 lecture: stream ecology</p> <p>2000 complete soil analyses</p>	<p>video and class discussion in vans</p> <p>lecture</p> <p>lecture and field activity (instructor-led)</p> <p>lecture and field activity (instructor-led)</p> <p>lecture</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>0.5</p> <p>1.5</p> <p>1</p>	<p>1</p>	<p>1</p>
46 Wed Jul 18	<p>Spokane River water quality project</p> <p><b>PICK MAIL TODAY IN SPOKANE</b></p> <p>630 breakfast</p> <p>730 lecture: water quality chemistry</p> <p>900 tour at Spokane River WWTP</p> <p>1130 upstream and downstream sampling and testing</p> <p>1630 time to write up results</p> <p>1800 Dinner</p> <p>1930 wrap-up and discuss results</p> <p><b>***best to gas up vans today***</b></p>	<p>guided tour</p> <p>field activity (instructor-led)</p>	<p>0.5</p> <p>1.25</p> <p>1.25</p> <p>0.75</p>	<p>0.5</p> <p>1.25</p> <p>1.25</p> <p>0.75</p>	<p>1.25</p> <p>1.25</p>	<p>1.25</p>
47 Thu Jul 19	<p>PDT -&gt;MDT drive to Glacier</p> <p>600 breakfast (bags to truck 545)</p> <p>700 leave camp</p> <p><b>Assign video: "Nova Origins - Earth is Born"</b></p> <p><b>Assign video: "Nova Origins - How Life Began"</b></p> <p><b>ASSIGN PAPER: Climate Change Modeling</b></p> <p>830 Fourth of July soils stop</p> <p>1000 (MDT) enter Montana and Mtn Time Zone</p> <p>1030 (MDT) Gas stop St Regis Travel Ctr (I-90E exit 33)</p> <p>(MDT) Hwy 93N: Stop in St. Ignatius (Flathead Indian Reservation) -- Mission and site of</p> <p>1145 former Catholic boardings school</p> <p><b>Anth Lecture: Health disparities &amp; Political ecology</b></p> <p>1315 (MDT) Depart for People's Center in Pablo MT -- N. on Hwy 93</p> <p>1345 (MDT) People's Center</p> <p>1600 (MDT) Depart for camp</p> <p>1730 (MDT) arrive camp Glacier Campground, West Glacier</p> <p>1800 (MDT) dinner (and prep lunches for tomorrow)</p> <p>1930 (MDT) lecture - supercontinent cycle, etc</p>	<p>video and class discussion in van</p> <p>video and class discussion in van</p> <p>field activity (instructor-led)</p> <p>lecture</p> <p>guided tour</p>	<p>1</p> <p>1</p> <p>1.5</p> <p>1</p> <p>1</p> <p>1</p>	<p>1</p> <p>1.5</p> <p>1</p>	<p>1</p> <p>2</p>	<p>1</p>
48 Fri Jul 20	<p>all times</p> <p>MDT</p> <p>Glacier hike</p> <p>530 breakfast</p> <p>615 leave camp for Logan Pass</p> <p>715 park vans at Logan Pass</p> <p>745 Start hike on Highline Trail from Logan Pass (relatively flat trail)</p> <p>Field notebook assignment - observe rock types and sedimentary structures along trail</p> <p>Stop 3.1 miles (before trail climbs to Haystack Pass) for lecture on stromatolites, early earth</p> <p>1000 atmosphere</p> <p>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)</p> <p>Field notebook assignment for return - observe montane plant/animal adaptations</p> <p>1300 Turn around time</p> <p>1700 Last hikers back at Logan Pass visitor center, depart for camp</p> <p>1800 dinner</p> <p>1930 Ecology lecture Discuss Adapt West EcoRegion Climate Projections</p>	<p>field activity (self-guided)</p> <p>lecture</p> <p>field activity (self-guided)</p>	<p>2</p> <p>1</p> <p>2</p>	<p>2</p> <p>1</p> <p>2</p>	<p>2</p>	<p>1.25</p>
49 Sat Jul 21	<p>Browning, drive to Bozeman</p> <p>615 breakfast (bags to truck 600)</p> <p>715 Anthropology lecture - mapping key concepts</p> <p>815 depart for Browning</p>	<p></p>	<p></p>	<p></p>	<p></p>	<p>1</p>

	900 Museum of the Plains Indian (9am-4:45pm, Tuesday through Saturday, Closed Sunday and Monday)	guided tour						2	
	1130 Blackfeet Heritage Center (open daily 10-4), meet Ernie HeavyRunner	guest lecture & self guided tour						1	0.5
	1300 Depart for Bozeman								
	<b>ASSIGN VIDEO: Climate Change: How do we know we aren't wrong (Podcast)</b>	video and class discussion in vans	0.5			0.5			
	<b>ASSIGN VIDEO: Rachel Carson American Experience</b>	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)	lecture	0.5				1		
	ASSIGN PAPER: Yellowstone and wolves								
50 Sun Jul 22	Day off Bozeman optional hike to Emerald Lake (Info on Emerald Lake Hike is in the folder: 10mi RT; Approx 5h.; 2000 elev gain.) - may have to share trail with mtn bikes on weekends Emerald Lake trailhead from camp - Turn R out of campground, head southeast on Hyalite Canyon Rd for 1 mile. Turn L on FS 3163. Go 1 mile, then turn L to stay on FS 3163. Go 1.3 mile to trailhead.								
51 Mon Jul 23	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 945 Earthquake Lake/Hebgen Lake 1200 West Yellowstone Entrance 1300 Norris Geysir Basin 1500 Mammoth Hot Springs 1730 arrive camp Yellowstone RV Park, Gardiner MT 1800 dinner 1930 LECTURE (ECOLOGY): Yellowstone wolf reintroduction paper discussion	videos and class discussion in vans lecture and field activity (instructor-led) lecture and field activity (instructor-led) lecture and field activity (instructor-led) lecture						1.5	
			2						
			1			1			
			1			1			
			1			1			
							1		0.5
52 Tue Jul 24	Yellowstone to Tetons 615 Breakfast (bags to van at 0600); Make lunches 715 leave camp 900 Canyon Village (Visitor Center, Inspiration Point) 1100 Sulfur cauldron and mud volcano 1230 Old Faithful 1330 Grand Prismatic spring 1400 depart Yellowstone 1600 Signal Mountain 1830 arrive camp (Gros Ventre) 1900 dinner pick up Rachel and Julie from airport (arriving 6:50pm) 2000 make lunches for hike tomorrow	visitor center (self-guided) lecture and field activity (instructor-led) lecture and field activity (instructor-led) lecture		0.5					0.5
			0.5			0.5			
			0.5			0.5			
			1						
53 Wed Jul 25	Tetons hike 500 Breakfast, pack lunches (packed last night) 545 hikers leave camp 615 arrive Jenny Lake, lecture and notebook assignment 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 7AM shuttle and paying CASH the rate is \$5/person. Jenny Lake Boating 307-734-9227 700 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?) 1930	lecture field activity (self-guided)	0.25			0.25			
							2		
54 Thu Jul 26	Tetons to Dinosaur 600 Breakfast (bags to van at 0545); Make lunches 700 leave camp 730 Gas stop Hoback Junction <b>Assign video: Mass Extinction</b> Green River overlook stop at Warrenton Bridge campground and picnic area (lecture on wildlife migration and conservation efforts) 900 <b>Assign video: Planet Earth - Saving Species</b> 1330 Gas stop Sinclair WY/UT state line 1400 drive Sheep Creek Canyon loop (south of Manila, UT), stop at Uinta fault	video and class discussion in vans lecture video and class discussion in vans lecture							
			1						
			0.25			1			0.25
						2			
			1						

