

Earth and Physical Sciences Department  
Western Oregon University  
Monmouth, OR 97361

July 2, 2014

Participants of:

ES458/558 River Geology and Rafting

Dear Colleagues:

Thank you for participating in ES458/558, Summer 2014 course at Western Oregon University. This course will be held during the last week of July. We will have a fun-filled, 6-day (5 night) adventure examining the regional geology, landscape, and river processes associated with central Oregon and the lower Columbia River. The focus will be on fun, camping, adventure, and field science. I will serve as the scientific facilitator and have a broad-based background in environmental geology, river environments, and field geology. Ed Bartlett (Bluefish, Inc.) from Bend, Oregon will provide the river/raft guide service. Below is a bulleted list of vital information and issues related to this excursion.

**Pre-Trip Check List:**

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| <input type="checkbox"/> Carefully read introductory letter          | <input type="checkbox"/> Inform instructor by email if you have special dietary needs (vegetarian, medical-related, etc.) |
| <input type="checkbox"/> Attend pre-trip meeting                     | <input type="checkbox"/> Complete pre-trip reading assignments  |
| <input type="checkbox"/> Pay deposit, fees and/or register for class |   |

**Field Course Dates** (*note: dates are slightly modified from online class schedule*):

Friday July 25, 2014 – Wednesday July 30, 2014. Pre-trip meeting on Wednesday July 23, 2014, 6:00 PM, Rm 218, Natural Sciences Building. Trip Departs Friday July 25, 2014 10:30 AM. Meet at Natural Sciences Bldg., 8:30 AM for van loading / preparation. Trip returns Wednesday PM, July 30, 2014. Post-trip meeting on Thursday July 31, 2014, 6:00 PM, Rm218, NSB; post-trip project due September 1. Contact the instructor if you are not able to attend the pre- and post-trip meetings, we will make alternative arrangements as needed; however attendance is highly encouraged to maximize the team-oriented experience.

**Class Fee and Deposit:**

Because this class is in a non-traditional “field trip format”, it involves much pre-planning and secured reservations for rafting equipment, river guide service, camp chef, van rental, and campground reservations. This course requires a commitment on the part of all students to attend and complete the trip. “Dropping” the class at the last minute results in creating many logistical problems for the rest of the group. Since rafting requires a team effort, a different level of commitment is required before the class begins. As such, a non-fundable \$150.00 deposit is required at the WOU cashier’s office. The balance of the \$395.00 course fee is due by the start of class. This fee covers van rental, campground fees, guide book, rafting guide service/equipment, and 3-days chef service/food while floating on river. When paying field trip fees, please make sure the cashier knows that they are for ES458/558.

## General Itinerary

7/25 – drive Monmouth to Newberry Volcano, camp at La Pine State Park; Cascade Field Stops en route.

7/26 – Newberry Volcano field stops, drive to The Dalles, Camp at Deschutes River State Park

7/27 – Explore lower Columbia Gorge, examine evidence and history of Missoula Floods, drive to Madras, meet river guides, camp Trout Creek on Deschutes

7/28 – Rafting on Middle Deschutes; field stops / activities, camp on Deschutes (Whiskey Dick)

7/29 – Rafting on Middle Deschutes; field stops / activities, camp on Deschutes (Buckskin Mary)

7/30 – Rafting on Middle Deschutes; pull off river 3 PM at Maupin; regroup / return to Monmouth

*NOTE: the above itinerary is tentative and may be changed by the instructor at any time during the trip.*

## Pre-Class Organizational Meeting:

We will convene a pre-trip organizational meeting on Wednesday July 23, 2014 at 6:00 PM, Rm 218 Natural Sciences Bldg. The purpose of this meeting is to hand out field guides, assign pre-trip readings, arrange cooking teams, menus, chore groups, and general group bonding. Attendance at this meeting is highly recommended, but we will work around schedule conflicts as needed.

## Post-Trip Meeting:

We will convene a post-trip meeting and debriefing session on Thursday July 31, 2014 at 6:00 PM Rm 218 Natural Sciences Bldg. The purpose of this meeting is to review the trip, share notes / photos, sort out orphaned field gear, and prepare for completion of the final project. Attendance at this meeting is highly recommended, but we will work around schedule conflicts as needed.

## Post-Trip Project:

The post-class project will involve a field trip report (road log, field notes, photos, location maps, etc.) as well as results-interpretations from field exercises and labs. The project is due by September 1, 2014; late projects will be accepted with a 10% grade penalty. You will receive a “regular progress” (RP) grade until the final project is submitted.

## Class Web Site:

A class web site is located at: URL <http://www.wou.edu/taylor> and follow the links to “ES458/558 River Environments”. The web site includes a syllabus, background readings, maps, field trip guides, photos from last year, etc. We will also use the site to post new photos and results once we return. Check the bulletin board section in the coming weeks, as I will be posting relevant information there. I will be updating the web site throughout the summer, in preparation for our late July trip. Check back often for updates

## Course Philosophy:

There is a high probability that you will have fun, make new friends, and learn something while on this trip. The excursion will include group exercises, field stops, hiking, camping, site-seeing and informative discussion. The emphasis is on camping, outdoor adventure, field science, and FUN! We will be river rafting through a variety of water conditions, refer to the “Raft Trip Guidelines” attached below.

## What to Bring on Field Trip:

Sleeping Bag / Pillow	Texas/Sandals/Water Shoes	Warm Night Clothes	
Tent (tent teams encouraged)	Pocket Knife / Flashlight	Cool Day Clothes	Positive Attitude
Toiletries	Lighter / Matches	Sunblock / sunglasses	Sense of Humor
Water Bottle	Mess Kit	Hat / sun shield	Willingness to Learn
Field Pack / Day Pack	Clip Board / Field Notebook	Towel / Swim suit	Fly Fishing Gear
Sturdy Hiking Boots	Pencils/Pens, Calculator, ruler	Cash / Credit Card	
Sleeping Pad	Rain Jacket / Pants	Camera/Waterproof Camera	

\*Note 1: July/August is typically sunny, hot and dry in central Oregon, with the possibility of afternoon/evening thunderstorms. In general, cotton clothing and water sports are not compatible. Synthetic fibers, sportswear and river clothes are designed to keep you warm and comfortable even when wet. Cover your bases and be prepared for hot/dry and cool/moist weather.

\*\*Note 2: tents, sleeping bags, pillows, and sleeping pads must be of small enough size so that they can be stowed in dry bags on the rafts. Sleeping bags should be SINGLE PERSON and constructed of COMPRESSIBLE synthetic fibers. You must be able to stuff and compress the sleeping bag into small spaces; compression stuff sacks are ideal. Large, cotton sleeping bags are not acceptable. They are difficult to compress, take up much space, and are difficult to dry out if they get wet. All of your clothes/personal items must fit into one water-proof river sack (about the size of a large pillow case) while rafting on the river. We will spend 2.5 days paddling and rafting on the river. A waterproof camera is best for taking pictures from the raft. Non-waterproof digital cameras are good for times when we are not on the raft. Disposable waterproof cameras are available at your favorite department stores. Make sure you bring a calculator, pencils, ruler, protractor, and notebook. Ziplock bags are useful for keeping notebooks / field guides dry while floating through white water. It is also helpful to have a small waterproof dry bag for snacks and other personal gear while paddling on the river. The river guide will provide “dry bags” for your personal gear, but you can bring your own if you have them. The Deschutes River is associated with world-class fly fishing. We will have plenty of time for relaxing and fishing, bring your gear if you have it. The WOU Natural Science Club and Recreation Center have tents and sleeping bags available for check out by students.

\*\*\*Note 3: On the days we are not rafting, we will be “car camping” in vans at state park campgrounds. Our vans will be shuttled during the raft portion of the trip. Excess car-camping gear not needed on the rafts, will be stored in the vans and secured by the shuttle service.

### **Food and Drink Situation:**

Participants will be responsible for purchasing and preparing food for all days, except when we are on the river with the river guide (the river guide will provide a cook and 3 meals per day + snacks while we are rafting on the river). For van camping portions of the trip, we will organize food teams of 2-3 individuals. Your team will be responsible for purchasing food, preparing meals, and cleaning camp cookware. We will organize food teams and menus at the pre-trip meeting.

While rafting on the river, the guide will provide a chef, camp-cooked meals, and snacks. Generally, meals will NOT be geared towards vegetarians. Please contact me by email at [taylor@wou.edu](mailto:taylor@wou.edu) if you have special dietary considerations or would like to ensure vegetarian alternatives. All individuals are encouraged to cover themselves by packing additional goodies in their personal bag if they have special food necessities (e.g. special snacks, dark chocolate, etc.). The river guide will provide basic beverages that may include water, hot chocolate, juice, coffee, tea. If you are a coffee aficionado, diet-coke user, or other specialty drink person, you should cover yourself and bring the proper quality and quantity in your personal gear. The river guide and cook will cover the basic food-drink scenario, but it's up to you to cover yourself on any specialty items (*note for drinks: cans only on the rafts, no glass*). The general rule on the river is that you will run out of your favorite beverage sooner rather than later, so plan ahead.

We generally have coolers, camp cookware, and camp stoves available through the Natural Sciences Club. We will augment with personal camping equipment. The river guides have a full mobile kitchen set up while rafting. Again, this will be worked out at our pre-trip meeting. Summer is fire season in central Oregon, as a general rule, fires / charcoal will not be permitted (we'll have to assess this on a camp-by-camp basis).

*Anticipated Food Schedule:*

- 7/25/12 – Individuals responsible for Lunch, Dinner, Snacks (\*bring lunch and snacks for trip over the mountains; we will be making a grocery stop in afternoon before heading to camp)
- 7/26/12 – Individuals responsible for Breakfast, Lunch, Dinner, Snacks (we will be making a grocery stop in afternoon before heading to camp)
- 7/27/12 – Individuals responsible for Breakfast, Lunch, Dinner, Snacks (we will be making a grocery stop in afternoon before heading to camp)
- 7/28/14 – Breakfast-Lunch-Dinner-Snacks provided by River Guide
- 7/29/14 – Breakfast-Lunch-Dinner-Snacks provided by River Guide
- 7/30/14 – Breakfast-Lunch-Snacks provided by River Guide, individuals responsible for dinner on the road back to Monmouth in evening.

**Additional Personal Vehicle**

We have a total reserved party size of 12, including myself. I have reserved one 12-person van, we will need at least one additional personal vehicle with room for equipment storage to tag along on the trip (preferably a truck with locking cap, van or other SUV). I will cover gas to cover the extra vehicle. This will be worked out at our pre-trip organizational meeting.

**Showers/Bathing**

Showers are available at State Park camps. No showers are available at any of our other camp spots. Be prepared for refreshing river baths and faucet showers. Biodegradable, environmentally-friendly soap and shampoo are advised. There may be limited opportunities to find showers in town, catch as catch can, at various stops along the trip.

**Pre-Trip Reading Assignment**

Visit the class web site at <http://www.wou.edu/las/physci/taylor/g407rivers/g407su14.htm> for comprehensive information regarding the course. Please read the following information before our pre-trip meeting on July 18.

- (1) Orr and Orr, 1999 - Overview of High Lava Plains (link in “Required Reading” section of web page)
- (2) Orr and Orr, 1999 - Overview of Deschutes-Columbia Plateau (link in “Required Reading” section)
- (3) O'Connor et al., 2003a - Overview of Deschutes Geology, Hydrology, Geomorphology (link in “Required Reading” section of web page)

This is all I can think of at the moment. Please email or call if you have any questions (see contact information below). I look forward to seeing you at the organizational meeting on July 23. If you can't make either the pre- or post-trip meetings, please contact me for further information / logistical discussion. The cell phone number and email address below is the best way to reach me during summer hours.

Sincerely,

Dr. Steve Taylor

Office phone: 503-838-8398 Cell phone: 541-760-9216 e-mail: [taylors@wou.edu](mailto:taylors@wou.edu)



## **Deschutes White Water Raft Trip Guidelines**

### **What to Wear:**

Shorts, t-shirts and sport sandals or tennis shoes are usually suitable for summer river trips.

NOTE: As part of this field trip, you will be hiking from the raft / camp on uneven and steep ground. Puncture vine and cheat grass are prevalent in central Oregon. Please make sure you bring sturdy hiking boots or hard-soled sports shoes along on the raft portion of the trip (i.e. a pair of water sandals for the raft and sturdy boots for your personal water bag).

While most days are typically warm and sunny, some days and evenings can be cool. Therefore, each person should bring a sweater and wind breaker or rain jacket. Synthetic pile or wool sweaters are recommended, as cotton will not work as an insulator if wet. Please bring secure river sandals, water shoes, or tennis shoes for your feet. Shoes must be securely fastened to your feet, otherwise they could be swashed away while drifting through rapids.

Those with sensitive feet may want to bring wool socks or wet suit booties. Also, be sure to bring a strap for your eyeglasses or sunglasses. All of your clothing will get wet. Be sure to bring an extra set of clothes and your personal gear. In packing your personal gear please keep your needs to minimum. Plan according to possible weather conditions and the length of your outing. If your personal gear will not fit in a reasonable size gym bag you have too much and you will need to leave something behind. We will need to prepare for transporting all personal gear and camp equipment in the rafts. An old hat to keep the sun off your face is a very good idea, but remember, it may end up in the river.

### **Expectations for River Trips:**

Safety is of the utmost importance when making a River Run. The rafts and equipment are of the highest quality and will serve you well when used in the proper manner.

*Life Jackets.* Life jackets are to be worn at all times by clients and staff while on the river. The jacket is designed to keep you afloat in calm and/or rough water. It is designed to keep your head and face out to the water without swimming. Life Jackets are the most important lifesaving device that you will use. Treat your life jacket carefully.

*Swimming.* Swimming will be done only at specified times. Times and places will be decided by the guides. Life jackets will be worn when swimming.

*In the Raft.* In the raft it is important to listen to the directions from the guides. In the raft it is important to not interfere with the guide or other paddlers. This is a group effort and everyone must perform as well as they are able.

### **Frequently-Asked Questions:**

*Is the Deschutes river trip all white water?* No – and most of the rapids are fairly short in length, interspersed with quiet stretches where current carries you along at a comfortable 3 to 6 miles and hour.

*Do I Have To Be A Good Swimmer?* To be able to swim is helpful, but is not really needed for a safe and enjoyable trip. You will be wearing a Coast Guard approved Life Jacket at all times.

*Will We Encounter Rattlesnakes And Annoying Insects On The Trip?* Encounters with rattlesnakes are rare, as these creatures make every effort to keep away from man. Insects are easily controlled with a good repellent, and river breezes help keep them at a minimum.

*Must I Be An Athlete To Participate As A Team Member Of A Paddle Boat?* No – paddling does involve some physical effort and modest coordination, but the activity is well within the physical capacity of an average person. Desire is much more important than physical prowess.