

FIELD TRIP #3 – WINTER OVERNIGHT

Snow Camping, Ice Axe Techniques, Snow & Roped Glacier Travel

FIELD TRIP #3 – SNOW CAMPING	
Time:	Date: March 31 st – April 1 st Starting time: Arrive by 7:30 am and find your instructor
Location:	<i>Mt. Rainier National Park, Longmire Parking Lot</i>
Directions:	Go East on SR 512 to SR 7. South on SR 7 to SR 706 in Elbe. East on SR 706 through Ashford to the Nisqually Entrance. Pay entrance fee and continue to Longmire.
Prerequisites:	<ul style="list-style-type: none"> ▪ Lecture #1, 2, & 3 ▪ Field Trip #1 Prep, FT #1 ▪ Complete a qualifying Conditioner
Assignments:	<ul style="list-style-type: none"> ▪ Reading: <i>Freedom of the Hills, 9th edition</i> <ul style="list-style-type: none"> Camping and FoodCh 3 Leave No TraceCh 7 The Cycles of Snow.....Ch 27 Mountain WeatherCh 28 Snow Travel and ClimbingCh 16 Avalanche Safety.....Ch 17 Glacier Travel and Crevasse Rescue.....Ch 18 ▪ Study: Information contained in this section. ▪ Review/Practice Ice axe arrest techniques and Crevasse Rescue 3:1 (Z) Pulley
Purpose:	<ul style="list-style-type: none"> ▪ Evaluate 10 essential systems ▪ Knots Test ▪ Practice snow travel skills ▪ Practice roped glacier travel ▪ Practice and demonstrate ice-axe arrest proficiency ▪ Practice snow anchor construction ▪ Practice emergency snow shelter construction ▪ Practice setting up an expedition snow camp ▪ Practice route finding on snow ▪ Practice roped team arrests ▪ Practice carabiner-ice axe belay ▪ Practice crampon techniques ▪ Discuss camp skills/techniques and nutrition ▪ Practice 3:1 (Z)-pulley crevasse rescue system ▪ Kiwi Coil
Additional Resources	Weather Forecasts: Mountain Weather Forecast Resource - http://www.mountain-forecast.com/ NOAA Mountain Weather Forecast http://www.wrh.noaa.gov/sew/forecast03.php

EQUIPMENT

See Required Equipment FT 3 on the Equipment Matrix (Lecture 1)

Special Notes & Items	<ul style="list-style-type: none"> ▪ Map: USGS map “Mt Rainier East” / CALTOPO Print out ▪ Drivers need a current <i>National Park Pass</i> or pay <i>National Park entrance fee</i> ▪ Mountaineering boots and adequate clothing (no cotton) required. ▪ Ice axe adze must be covered with duct tape ▪ Must have the 10 Essentials, blue bags, and snow stakes for your tent ▪ All food must be stored in bear canisters. Do not leave ANY left in the tent. ▪ Carpool, as much as possible. Chains are likely required for vehicles.
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PROCEDURE

When you arrive at Mount Rainier National Park, drive to Longmire and meet the instructors at the picnic tables near the entrance to the Longmire Inn, no later than 7:30AM (if you are going to have to use the restroom, arrive early). Find your instructors, they are going to need to check that you have a complete set of 10 Essentials, all required gear, and adequate clothing or you will not be allowed to participate in the field trip. Once your 10Es, equipment and gear have been checked, repack your bag, and get ready to head up to Paradise.

NOTE: You should repack and be ready so that when you get to the Paradise overnight parking lot, you can be ready to start hiking to camp in 15 minutes. Also make sure you and your team have a rope for every three students (i.e. a team of 6 students, should have 2 ropes). The ropes will be provided by the instructors.

At 9 AM the Longmire gate should open, and the group will drive up to the Paradise overnight parking lot. Make sure the field trip leader has your license plate information, and that you park on the overnight side of the lot (far side) if you drove to Paradise. Around 9:45 AM the group will depart the overnight lot and start heading to the Deadhorse group camping area. Your team/instructors will be assigned a team camping area within the group camp site, the team will need to navigate to that area, and **set up your instructors' tents ONLY**. You will need to unpack all items not needed for the day (i.e. you will be carrying your "summit pack"), and put the remaining gear in your instructor's tent until it is your group's turn at the camp set up station. NOTE: You will need to carry all your food at all times or bury it in the snow in the canisters. It is advised to bring a foam sleeping pad for crevasse rescue station.

On Saturday, the field trip will cover snow/expedition camp set up, camp skills/techniques/nutrition, crevasse rescue practice, and ice axe arrest practice. At the end of the day, you will need to go back to your camp, start melting water for dinner and the next day, and get set up to practice glacier travel EARLY Sunday morning.

On Sunday, you will get an alpine start to practice a simulated glacier climb. During this time you will practice roped glacier travel and crampon techniques. Around 7 AM you start the stations of the day, practicing emergency snow shelters, snow anchors and belays, crevasse rescue, and test individual ice axe arrests and team arrests. It is recommended to have a quick breakfast, have crampons ready, rope set up and ready to tie in before you go to bed Saturday night.

Around 3pm on Sunday, you will return to camp, quickly break it down, and hike out to the Paradise Parking lot. Everyone needs to work together to break down the campsite on Sunday. The Longmire gate closes at 5 PM so we need to be down to Longmire before then.

NOTE: ALL GARBAGE MUST LEAVE WITH YOU. PICK IT UP AND PACK IT OUT. REMEMBER TO DESTROY YOUR TENT PLATFORM. DON'T FORGET YOUR BLUE BAGS.

TIPS FOR A BETTER WINTER OVERNIGHT FIELD TRIP EXPERIENCE:

- Bring multiple pairs of gloves/mittens. Have a pair that you use to keep your hands warm while walking, and pair or two (if you do not have a layering system) that will get wet while digging anchors, emergency shelters, and during ice axe arrest. It is advised to have a glove/mitten layering system, and to bring more than one base layer.
- Bring extra clothes to change into back at camp Saturday night and that you can wear Sunday. Have dry clothes to change into after the field trip is over at the car too, it will make the ride home more pleasurable.
- Be ready for cold and wet. **NO COTTON!!! Bring hand/foot warmers, extra socks, a base, mid, and shell layers.**
- Line your pack with a garbage bag to keep contents from getting wet.
- Check the weather and pack clothing accordingly
- Bring some "11s": recommendations, earplugs and toilet paper
- Bring a plastic bag so you can put your boots in the bottom of your sleeping bag at night to keep them warm.
- Put your partially wet clothes in the bottom of your sleeping bag at night. It will help dry them out incase you need them the next day. Do not put very wet clothes in your sleeping bag, they will not dry and will only make you cold.
- Bring a Nalgene or 2 and put hot water in them and store them in your sleeping bag , they will help keep you warm.

SNOW CAMPING TECHNIQUES/ NUTRITION STATION

At this station, you will discuss how to use various stoves, practice melting water, discuss ideas for glacier travel nutrition, and get a chance to warm up, eat, and hydrate.

SNOW CAMPING/ EXPEDITION CAMP SET UP STATION

At this station, your team will get the chance to set up camp, expedition style. You will need to continue to stomp out a platform for the students' tents, set up the tents, dig out the vestibules, determine where your kitchen and latrine should be, build snow walls, etc. Make sure to bring snow stakes for your tent! It is required for each tent to have one shovel, but more than one is nice.

TEAM (Z & C PULLEY) CREVASSE RESCUE STATION

At this station you will get hands on practice building the 3:1 (Z) pulley and 2:1 (C) pulley team crevasse rescue systems. Each member of the team will get to practice being the lead and middle climbers during rescue. It is advantageous to start looking at and memorizing the steps and the Z-Pulley diagrams. You may also want to bring a foam sleeping pad for the middle climber to lie on while the leader starts the rescue.

ICE AXE ARREST STATION

On Saturday, at this station, you will get a chance to practice ice axe arrest. On Sunday you will need to show proficiency arresting in soft snow in the following positions:

- Feet first, with back on the snow, both with and without a pack
- Head first, with back on the snow, both with and without a pack
- Head first, with stomach on the snow, both with and without a pack
- Feet first, with stomach on the snow, no ice axe, no pack

SNOW ANCHOR AND BELAYS STATION

At this station, you will get a chance to practice building snow anchors and belaying a fellow climber. You will also discuss snow pack and when each anchor should be used. You will need to correctly build the following anchors and belays:

- Bollard
- Pickets (both top clip and vertical mid-clip)
- Deadman
- Practice Carabiner Ice Axe Belay

EMERGENCY SHELTERS STATION

At this station, you will have 30 minutes to build an emergency shelter. Start thinking what you might do if you are on a climb, weather starts to turn, and you are too far away to get to safety.

GLACIER TRAVEL AND SNOW SKILLS

As mentioned previously, we will simulate a glacier climb. You will be expected to get up and be tied into the rope at a designated time to start heading for the "summit". You will be tested on your ability to be tied in with prusiks and crampons on, and ready to go at the designated time. Don't be late. The instructors do like to get up to wait around for you to be ready. **NOTE: if weather looks bad/cold, it might be a good idea to wear a base layer, most teams will not be moving very quickly.**

During your travel to the summit you will be able to practice many rope team skills:

- Belaying into and out of camp/rest areas * Rope management/switch-backing/team communication
- Passing a picket * Practice using wands
- Kiwi Coil * Team Arrest

You will also get the chance to practice Crampon Techniques:

- American (combination)
- French (Flat-footing)
- German (Front pointing)

And Ascending/Descending Techniques

- Rest Step * Traveling in Balance
- Kicking Steps * Backing down
- Self-belay * Plunge Step
- Glissading