AIARE Recreational Level 2
Avalanche Course
Trip Notes
AIARE Recreational Level 2 Avalanche Course

The three-day/24-hour AIARE Recreational Level 2 is for those who have taken an AIARE Recreational Level 1 and Avalanche Rescue Course and have had at least a year of backcountry travel experience. The course provides backcountry travelers an opportunity to advance their decision making skills in more complicated situations such as being a leader within a small travel group, traveling in more complicated terrain, and/or developing a travel plan where online resources are scarce. While the Level 1 course uses field techniques to answer the question “How unstable is this snowpack?”, this course gets to the question of “Why is the snowpack stable or unstable?” You will develop an understanding of snowpack formation, metamorphism, avalanche formation and release. The AIARE Recreational Level 2 builds on the introductory avalanche hazard management model introduced in the Level 1 and adds to it the evaluation of critical hazard assessment factors. Students will describe and discuss weather, snowpack and avalanche processes, and identify how these processes relate to observations and travel within avalanche terrain.

This course is designed for recreationalists who have an interest in expanding their knowledge and understanding of snow stability and snow stability factors beyond what is taught at the Level 1. But remember that more knowledge does not make you safer if you forget everything you learned at the Level 1.

Curriculum:
Participants can expect 8-12 hours of classroom and 12-16 hours of field instruction in the following subjects:
- Energy balance, the mountain snowpack and metamorphism
- Faceting; near surface and near crust faceting
- Formation of surface hoar and persistent weak layers
- Stability analysis checklist: reviewing critical factors
- Trip Planning and hazard forecasting for avalanche terrain
- Terrain selection, route finding and applied map skills
- Travel protocols and group management
- Decision making and it’s traps
- Human factors and traps
- Information gathering

Student learning outcomes:
Differentiate where specific avalanche hazards exist within the landscape and identify avalanche terrain where consequences may be more severe.
Use and interpret weather, snow, and avalanche observations to locate appropriate terrain prior to entering and while in the field.
Demonstrate leadership skills within a small team that include facilitating small group discussion, promoting appropriate terrain selection, and utilizing simple risk management strategies.
Implement a basic forecasting framework that can be used in conjunction with and in the absences of local supporting avalanche information.
The course uses curriculum developed by AIARE (American Institute for Avalanche Research and Education) and our instructors are AIARE trained educators.

Location: We plan to get the classroom work over in one full day. After that we want to head to our hut at North Lake and do the field work there, in the center of avalanche terrain. So in addition to the materials for classroom work you will need overnight equipment for the hut.

Meeting place and time: We will meet the first day at 8:00 am at the White Mountain Research Station just out of Bishop. The address is 3000 East Line Street. To get here turn east at the intersection of Line Street and Highway 395 (Main Street) onto East Line Street. This is the southern most traffic light on 395 in Bishop. Follow East Line Street 3.8 miles past the airport, cross the Owens River and look for a cluster of building on the right (south side of the road). Drive in through the gate and park. Look for signs to the classroom.

Dates and Prices: Check the latest brochure, call us or go to our web site for dates and rates. Should minimum participant numbers not be reached you will be given the option of paying our private rate, rescheduling, or cancelling.
**Inclusions:** Price includes instruction, permits, a syllabus and loan of avalanche beacons, shovels, and probes if needed. Food is provided on the two day overnight, from lunch the first day to lunch the second day. Bring your own personal snack items such as cliff bars, power bars, gorp concoctions. A day's worth for most people would be 2 bars, 3 ounces of gorp, and perhaps a candy bar. Don't over do it. Also bring your favorite hot drink (tea, hot chocolate, cider etc.)

**Ratios:** The AAA and AIARE suggest a ratio of no more than six participants to one instructor for in the field sessions.

**Notes and other information:** If you want more information on what to look for in avalanche courses we suggest looking at the AIARE website at www.avtraining.org and the AAA website at www.avalanche.org

**Prerequisites:** Participants must have taken an AIARE Recreational Level I, a current Avalanche Rescue Course and have had at least a year of backcountry travel experience within the last five years. Students must have the ability to travel in avalanche terrain on either alpine touring skis or split boards. Snowshoes are discouraged on this course. However if we have a sufficient number of snowshoers we can run a snowshoe Recreational Level 2. We strongly discourage taking both the Level I and Level II in the same year and a winter of practical experience after the Level 1 course is recommended before taking the Level II course. The course is not particularly physical but you will need to be able to be out all day in a range of weather conditions traveling short distances on moderate to steep angled slopes.

**The North Lake Hut:** Our hut is a Weatherport structure 14x20 feet in size. Constructed of plasticized fabric stretched over a steel frame and with a wood floor it provides sturdy shelter from the elements. We have just have added a new floor and deck to make it even better. Inside is a wood fired stove to keep things warm and to warm up boots in the morning, lanterns to provide light during those long winter nights and a gas stove to keep the hot chocolate coming in the evenings or coffee to start the morning. The hut will comfortably seat up to 10 people, but for sleeping, especially with larger groups it may be more comfortable to sleep outside in a tent. You will need overnight equipment as in the equipment list.

**Avalanche Education starting in 2017:** Starting in the winter of 2017, there will be two educational progressions, tailored to different user groups; professionals and recreationalists. The American Avalanche Association determines the course outcomes and the course requirements. AIARE develops a curriculum and sends it to us and we teach it to you. The overall change is splitting programs into a Recreational track and a Professional track.

For Recreationalists: There will be an AIARE Recreational Level 1, similar to previous AIARE I, and an AIARE Recreational Level 2 course that will build from and add to the Level 1 course but also cater to a recreationalist's needs. There will also be a stand alone Avalanche Rescue Course.

For Professionals: If you’re an aspiring professional- patroller, guide, avalanche educator or forecaster, there will be a specific track for you. You’ll start with the AIARE Recreational Level 1, then continue with the Professional Level 1 followed by a Professional Level 2 and/or, a Professional Avalanche Search and Rescue.

**Background reading suggestions:**


**Equipment List for Avalanche II Course**

The following list is a general guide and will assist you in packing for the program. Please do not hesitate to contact us if you have specific questions regarding equipment or if you need assistance prior to making a purchase. The following list will vary according to your individual requirements. Items marked with a * are items that we rent or we can coordinate rentals with a local shop. When packing THINK LIGHTWEIGHT!

## Essentials
- On the snow transportation*. This can be skis or splitboard. For all backcountry rentals call Mammoth Mountaineering (760) 934-4191. Get equipment tuned, bases waxed, bindings checked for release and boot fit prior to the trip.
- Boots*. Stiff, high top ski boots in good condition. Make sure your boots are comfortable for walking and skiing. For boarders there is a lot of choice, but a stiffer backcountry type boot will work best enabling you to kick steps up hard snow and keep the feet drier than a soft boot.
- Poles*. Telescoping probe type are best.
- Climbing skins*. Close to the width of the skis’ waist. Make sure the glue is in good shape. Same for split board skins.
- Internal frame backpack of about 35-40 liters.
- Sleeping bag. This should be rated to about 10°F or for mid-winter trips to about 0°F.
- Slippers or shoes for inside the hut.

## Clothing
- 2 pair synthetic or wool socks. Ski socks are great since they go above the boot cuff.
- Gaiters. Necessary only if pants don’t cover boot top. If there is a gap, snow will get in and your feet will be wet and cold.
- Long underwear top and bottom.
- Warm pants, to layer between base and waterproof layer, such as softshell fabric. Get a lined style if you tend to run colder.
- Another fuzzy sweater top, such as fleece or Polartec.
- Pile/fleece/softshell fabric jacket.
- Light down jacket; synthetic fill is second choice. This is optional & can replace the previous item.
- Good quality rain/wind pants and rain jacket. Must be water proof and jacket must have a hood. Don’t skimp on your rain gear.
- Warm hat that covers the ears.
- Visor hat (for sun).
- Neck gaiter.
- Lightweight windstopper-type gloves.
- Shell gloves or mittens.

## Etc.
- Sun glasses. Good quality. If you wear corrective glasses you might want a second pair in case of breakage.
- Water Bottles. Two quart (1 liter) wide mouth bottles. Hydration systems and hoses typically freeze, even with an insulation sleeve.
- A pee bottle is far more pleasant than getting out of the tent in the middle of the night. Mark it well though to avoid confusion!!
- Headlamp. With a spare set of batteries.
- Pocket knife. Small Swiss army style, not a large Leatherman.
- Personal toiletries. Toothbrush, toothpaste and TP.
- Sunscreen and lip screen. 30+ SPF. A 1oz. bottle will be enough. Make sure the lip stuff actually contains a sunscreen.
- Personal Medical Kit. The guide will carry a large kit so yours will predominately consist of foot repair items, mild pain killer such as Advil, and band-aids.
- Camera/phone camera. Small enough to fit in a pocket; please no giant cameras with multiple lenses.
- Optional reading material, journal, Kindle, etc.
- Hand warmers if you tend to run cold.

## Shared Equipment Provided by SMC
- Shovels (bring your own if you have it).
- Avalanche transceivers (bring your own if you have it).
- Probes (bring your own if you have it).
- First aid kit
- Group ski/snowshoe repair kit, but bring repair items specific to your equipment
- Hut stocked with cooking and eating equipment.
- Sleeping tents.
- Foam pads. Bring an additional inflatable one if you want extra comfort.
- We will provide one breakfast, one dinner and two lunches but bring your own personal snack items such as cliff bars, power bars, gorp concoctions. A days worth for most people would be 2 bars, 3 ounces of gorp, and perhaps a candy bar. Don’t over do it. Also bring your favorite hot drink (tea, hot chocolate, cider etc.)

## You specifically don’t need
- Big first aid kits (we have a comprehensive one).
- Deodorant or any toiletries beyond those listed above.
- Items that are not on this list.

## Additional Snow study Tools (Not required but useful)
- Compass with inclinometer or better yet a dedicated slope inclinometer.
- Altimeter.
- Hand lens and snow crystal card.

For snow study tools and rental equipment we recommend calling: Eastside Sports (760) 873-7520 or Mammoth Mountaineering (760) 934-4191. We can help coordinate pick up and delivery but the best option to ensure the right fit is to get here early and try them on.

## Additional Thoughts
- Some people, particularly women, tend to run colder than others. If this is the case add another layer or two, a warmer sleeping bag, warmer boots and extra handwarmers
- Women – see our “Women on the Trail” information sheet at the Women’s Trips pages on the website.