

Avalanche I Syllabus

NATIONAL SKI PATROL



Far West Division – Mother Lode Region
Pinecrest Nordic Ski Patrol

Avalanche Level 1 (Modules 1 & 2)

February 1,2,2020

February 29, 2020

March 1, 2020 (possible option depending on student/staff) ratio)

Course Syllabus

Thank you for registering for the Avalanche 1 for Rescue Professionals course to be held at Pinecrest (February 1 and 2, 2020) and most likely Castle Peak – Tahoe Donner (February 29, 2020, possibly March 1). Enclosed is the student pack for the course. Please make sure you review all materials before the class and complete the pre-test. This course syllabus contains:

- a preliminary weekend agenda
- important logistics (lodging, meals, etc.)
- guidelines for personal equipment

You may also download this information from the Pinecrest Nordic Ski Patrol (PNSP) website at <http://www.pinecrestnordic.org/av1>

Additional course information must be ordered and received prior to the course weekend:

- Staying Alive in Avalanche Terrain (required)
- Snow Sense text (optional)

Order these at: Amazon.com

These will be emailed to you separately:

- Pre Test
- NSP Far West Division Event Release Form

All students must read the Staying Alive in Avalanche Terrain and complete the pre-test BEFORE the course weekend (we will check your work at check-in, so either bring a printed copy or email to the instructors in advance). All students must sign the NSP Event Release form in order to participate in the course (you may sign this in person on the first day of the course). If you are a minor, you must have the event release form signed by your parent or guardian before the class.

For those who prefer to travel on Friday night, lodging will be available as a courtesy at the Pinecrest Community Center (see course logistics).

IF THERE IS ANYTHING THAT YOU DO NOT UNDERSTAND OR HAVE QUESTIONS ABOUT, PLEASE DON'T HESITATE TO E-MAIL ME ASAP.

Regards, Keith Gale
keith_gale@hotmail.com

Course Coordinator Instructor of Record

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Agenda: Day 1

SATURDAY – February 1, 2020 – 7:30 PINECREST COMMUNITY CENTER PLEASE BE ON TIME! The Pinecrest Community Center is located on Pinecrest School Road off Dodge Ridge Road (after Meadowview campground and before Camp Oski).

Bring your Pre-Test, and writing materials to take notes.

07:30– 08:00: Breakfast, Check-in, Check off Pre-Test, & Sign Liability Release Form

08:00 – 08:30: Introductions and Course Overview

08:30 – 09:00: (1) Avalanche Awareness - Hazards and Characteristics

09:00 – 10:30: (2) Avalanche Triangle (Terrain, Snowpack, Weather)

10:30-10:45 Break

10:45 – 11:15: (3) Snow Mechanics and Avalanche Dynamics

11:15 – 12:00: (5C) Stability Assessment-Snow Pit

12:00 – 12:30: Working Lunch – Pre-Test Review

12:30 – 13:30: (5 B) Travel Safely in Avalanche Terrain-Planning

13:30 – 14:00: Travel to Crabtree Trailhead

14:00 – 17:00: Field Exercise

Terrain awareness and “quick” stability evaluations
Beacon practice – Single Burial
Strategic Shoveling
Probe –Spot/Organized Lines
Regroup at Trail Head

17:00 – 19:30: Break for Dinner - possibly potluck at Patrol cabin.

19:30 – 22:30: Pinecrest Community Center

(4) Human Factors:

- a) Presentation
- b) Avalanche Videos
- c) Scenario Discussion: Travel in Avalanche Terrain
- d) Recap/Close

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Agenda: Day 2

SUNDAY – February 2, 2020– 08:00 PINECREST COMMUNITY CENTER

- 0:7:30 - 0:8:00-** Breakfast/Dress-up
- 08:00 - 08:30-** (5A) Principles of safe travel
- 08:30 - 0:9:00-** (5C) Decision tools
- 0:9:00-0:9:30** (6) Companion Rescue
- 0:9:30-10:00** (7-8) Avalanche First Aid/Snow Immersion Syndrome (Possible Webinar)
- 10:00 – 10:30:** Drive to Gooseberry Trail Head
- 10:30 – 11:00:** Travel to field location
- Do beacon check at Trail-head Terrain recognition
- 11:00 – 12:00:** Snow Pit analysis
- 12:00 – 12:30:** Lunch
- 12:30 – 13:00:** Travel to Rescue Scenarios
- 13:00 - 15:30** Rescue scenario
- 15:30 – 16:00:** Return to Trailhead
- 16:00 – 16:30:** Return to Pinecrest Community Center
- 16:30 – 17:00:** Final Debrief and Planning for Field Exercise

Clean-up

All participants (*students, instructors, advisors*) are to return to the Pinecrest Community Center at the conclusion of Sunday field exercise.

NO EXCEPTIONS!!

During the week of February 18, students will be required to review trip plans and report to class the following weekend with a comprehensive travel strategy based on available maps, weather and snow reports, personal and team equipment, and group make-up and dynamics. Details will be discussed at the end of class on Sunday February 2, 2020.

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Agenda: Day 3

SUNDAY – February 29, 2020 – 08:00 CASTLE PEAK – TAHOE DONNER

We will confirm exact meeting place and directions during the week of February 25.

Please report to the meeting place on time and ready for a full day on the snow.

Pending weather and snow conditions, the field day may be re-scheduled to another subsequent weekend.

07:30-08:00-Boot-up, purchase Day Passes for Sno-Park

08:00 – 08:30: Review objectives and trip plan

08:30 – 09:00: Travel to Trailhead.

09:00 – 12:00: Travel to field location

Do beacon check en route, Terrain recognition; safe travel practices

12:00 – 12:30: Lunch

12:30 – 13:00: Snow-pit

13:00 – 15:00: Rescue Scenarios

15:00 – 15:30: Multi-beacon practice

15:30 – 16:30: Return to Trailhead

16:30 – 17:00: Debrief and return to vehicles.

17:30- Depart

All participants (*students, instructors, advisors*) are to return in teams to the meeting place at the conclusion of Sunday field exercise. Nobody will be dismissed until all teams, members, and instructors are present and accounted for at the trailhead.

NO EXCEPTIONS!!

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Logistics

1. Time and Location

Date Location Time Class Hours Field Hours

Saturday, February 1 Pinecrest 07:30am - 10pm

Sunday, February 2 Pinecrest 7:30am - 5pm

Sunday, February 29, Castle Peak 8am - 5pm

The current curriculum for Avalanche I for Rescue Personnel requires a minimum of 28 hours instruction (typically 10-12 hours classroom, 16-18 hours field) over 3-4 days. We will take advantage of our access to the Pinecrest Community Center to conduct further classroom hours on the first Saturday evening of the course, thus allowing us to complete the full curriculum in 3 days.

The first weekend of the course is held in Pinecrest, CA on February 1-2, 2020 The classroom component of the class will be held in the Pinecrest Community Center. The Community Center is located on Pinecrest School Rd, first right hand turn on Dodge Ridge Rd. Link to Google map: <http://tinyurl.com/pinecrest-av1>

Field sessions during the first weekend will be held on the Nordic trails accessed from the Crabtree or Gooseberry Road trail heads.

Class Registration starts promptly at 7:30 AM Saturday morning. Please be on time. You will be asked to check in, sign the liability waiver).

The second weekend of the course will take place entirely in the field, planned for Sunday, February 25 at Castle Peak/Tahoe Donner ski resort. This location offers us better access to more avalanche terrain in which to conduct field exercises.

2. Accommodations

- The Pinecrest Community Center will be available to sleep in on Friday and Saturday nights of the first weekend. The center will be opened on Friday evening, at a time TBD. Class starts at the same location 8 AM Saturday.
- **NOTE: This is courtesy accommodation.** Sleeping arrangements consist of an open floor on which to spread a sleeping bag. The community center can be noisy throughout the night - doors slamming and people snoring. Please bring earplugs and realistic expectations regarding the amount of sleep you will get. There are no courtesy accommodations at Castle Peak for the second weekend's field day. If you choose to stay the night you should make your own arrangements. Groups of students have coordinated shared lodging in the past.

3. Meals and Cooking:

Breakfast- For the Pinecrest weekend, you will need to provide your own food (except for Breakfast – at the start of class, we will provide doughnuts, bagels, coffee, tea, and other breakfast delights).

Lunch - Pack lunches that can be eaten on-the-go, as there will not be time for cooking. For the field session, please arrive at the start time fully fed, and be sure to bring a substantial lunch for a long day out

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Dinner: NOTE: **Cooking is not allowed** in the Pinecrest Community Center at any time. For Dinner on Saturday evening we may either have a Potluck (preferred) or go to the local restaurants. Saturday Evening Meal:

- We will break for roughly 2.5 hours on Saturday evening for dinner. Hopefully we can coordinate a potluck with the Pinecrest ski patrol. If not...
- There are numerous options around Pinecrest to eat out. The following are some PNSP favorites:
 - Strawberry Inn: 31880 Highway 108, Strawberry, CA 95375
 - Steam Donkey Restaurant and Bar: Pinecrest Lake Road, Pinecrest, CA
 - Mia's Brick Oven Pizzeria: 30040 State Highway 108, Long Barn, CA 95335

4. Transport on Snow:

- We will conduct field sessions in the Pinecrest backcountry trail system throughout the first weekend. The field session will be conducted entirely in the outdoors. Students must be equipped with either skis or snowshoes for crosscountry travel over snow.
- Skiers are encouraged to use free-heel bindings (cross-country, telemark, or AT), and either use waxless-type touring skis or bring climbing skins
- Snowshoes are recommended especially if you are not comfortable on skis. Bring ski poles and sturdy, waterproof boots if you are snowshoeing.

If you are renting gear, pick up your gear and make sure it fits and works properly BEFORE class starts at 8am Saturday. Please contact the course instructors if you have any questions about renting gear.

NOTE: Field sessions will take place in a backcountry, winter environment and weather patterns are unpredictable. Students must be equipped with appropriate clothing and gear to spend several hours in potentially cold and wet conditions. Students are expected to be proficient in moderate uphill and downhill travel in difficult snow conditions using their choice of gear (backcountry skis or snowshoes). Please do not hesitate to contact the course instructors if you have any questions on appropriate gear and backcountry travel requirements.

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Equipment

For the lecture sessions: dress comfortably to be in a classroom for the entire morning session. Bring a pen and paper for taking notes.

For the field sessions: dress to be outside, working, for the entire day. We will eat lunch out on the mountain, so pack a healthy lunch. Bring a backpack with enough room to carry your lunch and any personal equipment, with some extra room for group equipment. Avalanche work is strenuous activity requiring plenty of energy. Make sure you bring a good lunch and plenty of water with you. You are also likely to spend a lot of time in the snow, and are likely to get wet. Be sure you are equipped with the proper clothing to maintain comfort all day in cold, variable, and wet conditions.

We encourage participants to use their own equipment wherever possible, as this will improve their experience with that equipment. You are not expected to own all the equipment on this list, but if you have it or can borrow it, please bring it along. We have a limited supply of packable shovels and avalanche transceivers that we can loan to those who do not already own them. If you plan on purchasing one of these items, the classroom instruction and field trip will give you a chance to learn about several different options before making your purchase. You can use this page as a checklist.

Avalanche 1 EQUIPMENT LIST

Clothing (required): NO COTTON!!!

- ___ Long Sleeve Shirt/Sweater (*polypro, fleece, wool*)
- ___ Pants (*polypro, pile, wool, wool blend, ski pants*)
- ___ Warm Jacket/Sweater (*fleece, down, wool, wool blend*)
- ___ Long Sleeve Thermal Underwear (*polypro, wool*)
- ___ Beanie/Balaclava
- ___ Mittens/Gloves - 2 pair (*polypro, fleece, wool*)

Foul Weather Gear (required):

- ___ Waterproof/Water-Repellent Parka or Shell
- ___ Waterproof/Water-Repellent Pants or overalls
- ___ Waterproof/Water-Repellent Mittens or gloves

Footwear (required):

- ___ Ski Boots or well waterproofed Hiking Boots
- ___ Gaiters (*calf height*)
- ___ 2 pair heavy hiking/ski socks

Transport (required):

- ___ Skis (*backcountry touring, with skins*)
- ___ Snowshoes (*Bearclaw or similar small type*)
- ___ Ski Poles (*even if you are snow shoeing*)

Avalanche (bring it if you have it. Rental beacon available for \$25) :

- ___ Avalanche Transceiver (beacon)
- ___ Avalanche probe
- ___ Snow shovel

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Helpful Links

There is a plethora of good information on avalanche education and awareness available on the internet. Listed below are just a few websites that your instructors find particularly useful. Lots of hidden treasures lie deep within these sites... take a few hours to browse and explore.

Avalanche Forecasts for various regions of California:

<http://sierraavalanchecenter.org> (Central Sierra, Tahoe area)

<http://esavalanche.org> (Eastern Sierra) <http://shastaavalanche.org>
(Mt Shasta)

Weather information

<http://www.wrh.noaa.gov/> (The source of most internet weather forecasts)

<http://www.wrh.noaa.gov/forecast/wxtables/index.php> (Forecast weather tables... useful!)

<http://www.nohrsc.nws.gov/> (Detailed snowpack data... pretty technical)

Incident reports and information portal for other mountain regions:

<http://avalanche.org>

<http://csac.org>

Products and training information:

<http://fsavalanche.com/> (National Forest Service Avalanche Center)

<http://beaconreviews.com> (Comprehensive data on various beacons)

<http://www.backcountryaccess.com/education-research/avi-research-and-papers/>

<http://www.youtube.com/user/AvalancheGuys> (Snow pit analysis videos - Montana)

Discussion forums (caution, not all advice here is legitimate):

<http://www.telemarktalk.com/phpBB/viewforum.php?f=2>

<http://www.tetongravity.com/forums/forumdisplay.php?f=17>