

# Level 1 - Vertical Caving Techniques

A caving seminar presented by the  
**Vertical Training Commission**

Redmond, Oregon

**May 2 - 5, 2024**

hosted by

**Oregon High Desert Grotto & Direct Action Vertical**



## About the Seminar

This is the Level 1 course prepared by the NSS Vertical Training Commission. The course objective is to prepare cavers new to vertical, or cavers wanting to gain better skills, to safely enter and explore vertical cave passages. Basic equipment, safety, and vertical techniques will be trained and evaluated. Students completing this course should be able to safely attend and follow on a basic vertical caving trip.

Skills will be practiced on the training tower, and then reinforced with a day of practice in vertical caves. The course will be physically demanding at times, but will provide participants with valuable skills that can be used to safely explore and enjoy vertical caving trips.

## Registration

Cost: NSS Members: \$220.00

Non-NSS: \$270.00

To register, go to: <https://caves.org/event/vtc-level-1-redmond-may-2024/>

Cost covers the course, on-site camping, showers, student materials and food. Course is capped at 12 students, so register now!

## Expectations of Students

- Personal vertical gear: All students should bring their own helmet, gloves, lights, and personal vertical gear. There IS vertical gear for loan on a limited basis, so please advise the course lead (see below) if you anticipate needing it. See below gear list. **If your system does not pass safety inspection for completeness, condition or function, you will not be allowed to participate in the course.**
- Pre-course reading and practice: Students will be expected to have read and studied all written course materials before the start of the course, including learning and practicing the required knots. [The VTC Level 1 student handbook - Vertical Caving Techniques - must be purchased for the course: Cost is \\$15.00 NSS Member, \\$30.00 non-member.](#)
- Attendance: Students will be expected to attend ALL course sessions in order to pass the course.
- Debrief and evaluation: To complete this course, students will need to pass a performance evaluation. This evaluation includes demonstration of knot-tying, basic techniques on a rope tread-mill, dealing with unexpected obstacles on a rope treadmill, and entering a cave using vertical caving techniques. At the end of each module are a series of STUDENT EVALUATION questions to evaluate how well you understand the materials. These questions form the basis of the multiple-choice exam at the end of the course. Students are required to obtain a minimum passing score of 80% in this exam.

## Nature of Caves

Cave exercises will be in one of two caves. Charlie the Cave, a multi-level cave tube is about 35 minutes away. Pits range from 15 to 35 feet. McKenzie Pits, a pit complex featuring drops from 85 feet down to 170 feet, may also be used. Floors vary from smooth lava to large rugged breakdown. Cave temperatures hover in the mid to lower 40s. Caves are dry and contain no streams. Knee and elbow pads are strongly recommended. Lava rock is very rough, and will pick apart loose knit fabrics and stretch woven fabrics. We recommend sturdy, tight knit materials with few pockets or things to get caught on. Other caves / pits may be used depending on class size.

## Nature of May Weather in Oregon

The training center is at 3400 feet elevation. Cave elevation is between 4000 and 4900 feet. Early May is a transition month. For early May historical averages are high 50's in the day and high 30's at night. Typically not much rain...this is a dry area, but light late spring snow is not impossible. Check weather forecast for Redmond, Oregon prior to coming and pack accordingly.

## Accommodations

The seminar classroom, camping, and vertical course will be held at the residence property / training center of Eddy Cartaya in Redmond, Oregon. Camping is on the 10 acre property near the alpine caving tower. Porta-potties and field sink will be on site. Water will be available in tanks on site, as will power via electrical extensions. Two small tents with hot propane showers will be available at all times. Camping in vehicles and parked RVs is also permitted. No hook ups are available but we may be able to run power and hose to one. Food will be provided on-site indoors (hot meal breakfasts and dinner). Lunches will be catered in. **(Please note any dietary restrictions or allergies on your registration form when you register!)** A fire ring is available for after hours, if weather and wildfire conditions permit.

Tipi and Cabin: There is a 3 cot carpeted Native American tipi (25' high) and a 3 bed rustic cabin available to rent on site. Both have electric heat and power to run phones, laptops, etc. There is no running water in these. Cost is \$60 per person (\$20.00 / night for 3 nights Thursday, Friday, Saturday night).

## Required Equipment for All Participants (all gear should be marked as yours prior to your arrival!)

1. **HELMET.** A caving or climbing helmet. UIAA or CE approved, with a 3 or 4-point non-elastic chinstrap.
2. **LIGHTS.** Three dependable, independent sources of light. At least 2 must be helmet mountable.
3. **RUGGED WARM CLOTHING:** cave suit or coveralls, fleece top and bottom, wool socks, NO COTTON! Recommend knee and elbow pads. Appropriate clothes for being outside.
4. **GLOVES.** Leather or leather-palmed work gloves, or caving gloves that still permit dexterity in tying knots and operating vertical systems
5. **BOOTS.** Sturdy, lug-soled hiking boots or rubber boots with good support. NO tennis shoes!
6. **FOOD.** Quick energy, ready to eat (trail mix, candy bars, cheese, etc.).
7. **WATER.** 2 liters minimum.
8. **SMALL PACK.** Rugged enough for the cave environment.
9. **FOUR CARABINERS.** Four extra carabiners that are not part of your SRT gear. Locking preferred.

## 10. SRT GEAR.

- Commercially sewn seat harness. Rock climbing harnesses with a vertical belay loop are discouraged.

An ascending system that includes:

- at least two gripping points of attachment above the waist, at least ONE of which is a mechanical ascender attached to the seat harness that can be manipulated with one hand (Prusik systems are discouraged!)
- At least one (some carry 2) full strength tether attached to the seat harness with a locking carabiner (non-lock OK) on the free end, independent of an ascender
- approved descent device: standard rack, 4-bar micro-rack with hyperbar, bobbin style device. ATC type devices, Gri Gri, plate type devices, Scarabs, industrial rope access devices are not approved for this course. We will have extra devices to loan you if needed.

11. WEBBING (1") or ACCESSORY CORD (7+ mm). 15+ feet long, 10+ kN minimum breaking strength (MBS).
12. **First Aid kit:** For yourself.
13. **All your necessary medications and toiletry kits.**

## Tentative Schedule (all times are Pacific; subject to change)

### May 2 (Thursday)

3:00 - 7:00 PM Check in, camp set up, and equipment

check off 7:00 - 8:00 PM Dinner

8:00 - 9:00 PM Course orientation and Introductions

### May 3 (Friday)

7:00 - 7:45 AM Breakfast (provided)

8:00 - 12:00 PM Morning session (equipment, devices, ropes, knots, systems) 12:00 - 1:00 PM Lunch (provided)

1:00 - 5:30 PM Afternoon session (intro to SRT & changeovers)

6:00 - 7:00 PM Dinner (provided)

7:00 - 9:00 PM Evening session

### May 4 (Saturday)

7:00 - 7:45 AM Breakfast (provided)

8:00 - 12:00 PM Morning session (Knots, rebelays, deviations)

12:00 - 1:00 PM Lunch (provided)

1:00 - 5:30 PM Afternoon session (On rope maneuvers and problem solving) 6:00 - 7:00 PM Dinner (provided)

7:00 - 9:00 PM Evening session / movies / social

### May 5 (Sunday)

7:00 - 7:45 AM Breakfast (provided)

8:00 - 3:00 PM Travel to cave, in-cave exercises: lunch on your own as

time allows 3:00 - 5:30 PM Course wrap up, written test, critiques

### Questions?

For **questions** regarding gear, logistics, or seminar material, contact course coordinator, Eddy Cartaya, [glaciercaveeddy@gmail.com](mailto:glaciercaveeddy@gmail.com) or 541-213-6257.