

# SINGLE-PITCH TRAD COURSE

This course is designed to teach the skills required to lead climb single-pitch trad routes. Students will be given time and education to safely and efficiently place gear and develop new climbing skills that will help the break into a new type of climbing.

## Skills Covered

- Proper and efficient trad gear placement techniques
- Proper gear spacing
- Leading single-pitch climbs on trad gear
- Knowledge of fall factors

## Graduation Criteria

- Safely lead 2 single-pitch trad routes 5.5 or above

## Prerequisites

- Sport climbing course or equivalent
  - Ability to lead on bolts up to 5.7
  - Ability to rappel safely
  - Able to build a top-rope anchor on bolts

## Summary of Activities

- 1 evening kickoff session
- 2 evenings for skills review
- 2 weekend days of outdoor mock leading on trad gear
- 1 weekend day of outdoor leading on trad gear

## Student Gear List (\*please DO NOT purchase gear until AFTER our Kick Off Session)

1. Climbing helmet
2. Rock climbing shoes
3. Harness
4. 1 personal anchor (Metolius) + locking carabiner
5. 6 single alpine slings
6. 2 double alpine slings
7. 1 triple alpine sling
8. 18 standard-sized non-locking carabiners (2 per sling)
9. 6 locking carabiners (in addition to the one in #4)
10. One set of standard-sized cams
  - One cam each matching the following Black Diamond sizes: .3, .4, .5, .75, 1, 2, 3
11. 7 carabiners – one for each cam
  - Do not need to be full sized
  - Getting carabiners that match the color of your cams will be helpful
12. One set of nuts
13. 1 carabiner to rack the nuts
14. Nut tool
15. 20' cordelette - 5mm tech cord
16. 2 rolls of climbing/gym tape

## Session 1: Kickoff

<b>Duration</b>	One weekday evening (~2 hours)
<b>Location</b>	Program center
<b># instructors needed</b>	Whoever can make it
<b>Prep required</b>	<ul style="list-style-type: none"><li>• Book room at program center (how?)</li><li>• Order pizza and beer</li></ul>
<b>Equipment required</b>	<ul style="list-style-type: none"><li>• A few racks with a variety of brands/types of gear</li><li>• Other related climbing gear - rope, shoes, backpack</li><li>• Pizza and beer</li></ul>

### Talking points

1. Student and instructor introductions
2. Course overview
  - Course goals and skills taught
  - Overview of each session
  - What to expect/bring
  - Progression to Multi-Pitch Crag Course
3. Expectations
  - Basic skills required: Sport leading, lead belaying, cleaning and rappelling, top rope anchor building
  - Safety-first. Always.
4. Gear talk
  - Pro: Different kinds, difference between brands
  - Shoes: Shoe talk
    - soft slippers, board lasted, crack shoes, laced vs. velcro, etc. – and what types of climbing they are suited for. What to look for in an “all day” shoe?
  - Slings: Pros/cons between different materials
  - Cordelettes: Size vs portability
5. Skills prep
6. Logistics
  - Campsites
  - How to sign up for fieldtrips
7. Questions

## Session 2: Skills Review

<b>Duration</b>	2 weekday nights (2-3 hours each)
<b>Location</b>	Program center <ul style="list-style-type: none"><li>• South wall for clean and rappel</li><li>• Plaza and basalt columns for crack climbing</li><li>• Basement and south plaza for gear placement</li></ul>
<b># instructors needed</b>	As needed
<b>Prep required</b>	<ul style="list-style-type: none"><li>• Book facilities at program center</li><li>• Order food for instructors</li></ul>

### Logistics

Split students into 2 groups. Each group will do one of the stations and rotating to the other on the next night.

1. Gear placement and intro to anchor building
2. Clean and rappel and climbing skills (Students here can be further split into 2 sub-groups rotating internally on the same night)

### Station 1: Cleaning and rappelling, climbing Skills

Clean and Rappel sub-station

**Location: South Plaza Outside Wall**

**Setup:**

- **3 ropes set up for top roping**
  - **3 ropes at base for mock Leading**
  - **1 rope set up on east pillar for sit & spin**
  - **1 top rope set up to climb up to east pillar**
  - **1 top rope set up on low middle wall for Munter rappel**
1. Review how to cleaning an anchor
  2. Emphasize the importance of arriving at, and memorizing, a personal “standard”
    - Order of actions you perform when cleaning and rappelling to avoid having to figure things out under adverse conditions (think after dark, in the rain, while shivering)
  3. Discuss the need for 2 points of attachment to be secure
    - Discuss the pros and cons of using 2 personal slings vs. 1 personal and the rope with a clove hitch
  4. Discuss various kinds of “middle markers” on the rope
    - Include the fact that some resemble newer end markers, and the importance of not confusing them.
  5. Discuss the importance of weighting the rope when rappelling, **before** you remove your personal slings
  6. Discuss how to coil the rope properly to ensure it falls smoothly and without getting caught in itself
  7. Go over how to throw the rope when setting up a rappel, including:
    - Ways to prevent the rope from tangling in the air – consider throwing the rope in 2 separate coils (the secured coil first)
    - Where to aim, are there trees, is it windy?
    - The importance of yelling, “**Rope!**” before you throw it
    - The option of simply lowering the rope without having to throw it, in some situations.
  8. Go over techniques for rappelling past the lip of a roof
  9. Go over considerations for long free rappels – gloves, two-handed braking, how to rest/stop, if necessary
  10. Go over the technique for “sit & spin” rappelling – where the anchor point is below your stance/ledge

## Climbing skills sub-station

**Location: Basalt columns, basement slabs, indoor climbing wall**

**Setup:**

- **3 ropes set up for top roping on each side of the columns**
1. Slab technique:
    - Discuss and demonstrate proper weight distribution and balance, footwork, crimping techniques
    - Have students practice on the various slabs
  2. Crack technique:
    - Demonstrate and have students make their own tape gloves
    - Discuss footwork and hand/finger placements for climbing various sizes of cracks
      - finger locks
      - hand jams
      - finger stack
      - ring locks, etc.
    - Have students practice on the various cracks indoors and on the columns

## Station 2: Gear placement and intro to anchor building

**Location: Basement, south plaza**

**Setup:**

- **Anchor boards in basement**
1. Discuss and demonstrate gear placements in cracks
    - a. crack sizes
    - b. type of rock (smooth or rough)
    - c. varying width vs. parallel sided
    - d. flared cracks
    - e. cam walking
    - f. direction of stem - horizontal vs. vertical gear placements
  2. Demonstrate the use of a directional first piece to protect subsequent placements from being dislodged
  3. Discuss zippering gear
  4. Discuss fall factor and how it changes as a pitch gets led, and how this affects both the leader and the belayer
  5. Discuss ground fall and gear placement intervals to avoid it – gear placements should be closer together lower on the pitch – no matter what the difficulty of the actual climbing
  6. Demonstrate building of 3 point anchors using gear
  7. Discuss the options for physical conditioning to become a better climber

## Session 3: Mock-leading FT

<b>Duration</b>	2 weekend days
<b>Location</b>	Tieton – Royal Columns Leavenworth – Mountaineers Dome, Clamshell, Trundle Dome
<b># instructors needed</b>	As needed
<b>Prep required</b>	Assign students to crag if more than one is used

- Leader to meet students at parking lot while the other instructors head to the crag to set up top ropes. There should be enough easy routes set up for mock leading, and preferably one or two harder crack routes for students to practice crack climbing.
- Students pair up and work in teams of two with one instructor:
  - One student climbs (on top rope) and mocks leads, trailing a second rope as the mock lead rope. Once at the anchor, the student anchors in with 2 points and sets up a second top rope with the mock lead rope. The instructor will then climb up on that rope to the anchors, or the instructor could climb before the student and wait up top while the student mock leads. Once at the top, both student and instructor will convert the top ropes to rappels, and rappel off separate ropes. On the way down, the instructor will check and critique the student's gear placement.
  - The other student on the ground will practice building anchors, or practice crack climbing on a top rope route.
- Instructors should take note of each student's skill and capability and report that to the leader at the end of each day. By the end of the weekend, students should be grouped into: Ready to lead, Need more practice.
- Expectations at the end of the weekend:
  - Students will be able to place good gear – choosing the right size and the right spot
  - Students will know a good placement from a bad placement
  - Understanding of gear spacing
  - Understanding of gear extension
  - Crack climbing skills
  - Initial anchor building skills

## Session 4: Leading FT

<b>Duration</b>	1 weekend day
<b>Location</b>	Tieton – Royal Columns Leavenworth – Mountaineers Dome, Clamshell, Trundle Dome
<b># instructors needed</b>	As needed
<b>Prep required</b>	Assign students to crag if more than one is used

- Meet and greet students in parking lot. Other instructors go set up ropes.
- Per instructors' assessment from the previous FT and the student's comfort level, students will either continue to mock lead or lead for real.
- Instructors need to take note of which students end up leading and how well they do. Since this is a progression to other climbing modules, students will be given a pass/fail for this course.
- Expectations:
  - Students lead at least 2 routes by the end of the day