

# MULTI-PITCH TRAD COURSE

This course is designed to teach the skills required to complete climb multi-pitch trad routes. Students will be given time and education to safely and efficiently lead multi-pitch climbs.

## Skills Covered

- Building of 3-point gear anchors
- Belaying a follower from the top with an auto-blocking device
- Swapping leads
- Being efficient on climbs including proper rope management
- Basic rescue techniques
- Understanding route selection

## Graduation Criteria

- Safely lead 1 multi-pitch trad route

## Prerequisites

- Single-pitch trad course or equivalent
  - Ability to lead on trad gear up to 5.6
  - Ability to rappel safely
  - Ability to build a top-rope anchor on bolts
  - Basic skills to climb cracks

## Summary of Activities

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

## Student Gear List

\*Please DO NOT purchase gear until after our Kick Off Session

(#17 & #18 are above what is required for the single-pitch course)

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
17. Hollow block (Sterling) – either 13.5" or 19"
18. Small daypack to carry water, food and insulation on climbs

## 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> |

### Talking points

1. Student and instructor introductions
2. Course overview
  - Course goals and skills taught
  - Overview of each session
  - What to expect/bring
3. Expectations
  - Basic skills required: Single-pitch trad leading, lead belaying, cleaning and rappelling, top rope anchor building
  - Safety-first. Always.
  - At anchor points, everyone must be attached with 2 anchor points.
4. Gear talk
  - Pro: Different kinds, difference between brands
  - Shoes: Shoe talk, emphasis on shoes that provide all-day comfort
    - 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
  - Explain anchor cards
6. Logistics
  - Campsites
  - How to sign up for fieldtrips
7. Questions

## Session 2: Skills Review

|                             |   |
|-----------------------------|---|
| <b>Duration</b>             | 2 weekday nights  |
| <b>Location</b>             | Program center <ul style="list-style-type: none"><li>• South wall for rappel and multi-pitch skills</li><li>• Basement and south plaza for anchor building</li><li>• Inside climbing wall for rescue skills</li></ul> |
| <b># instructors needed</b> | Whoever can make it   |
| <b>Prep required</b>        | <ul style="list-style-type: none"><li>• Book facilities at program center (how?)</li><li>• Order food for instructors</li></ul>   |

### Logistics

Split students into 2 groups. Each group will do one station each night and rotate to the other on the next night.

1. Multi-pitch skills
2. Anchor building, advanced rappel skills (saddle bag rappel, munter rappel, tying ropes together) and basic rescue techniques (ascending the rope) – option to split this into 2 sub-groups to rotate within the same night.

### Station 1: Multi-pitch skills

**Location: South wall**

**Setup: Set up extra bolts on the wall to act as intermediate anchors.**

1. Discuss and demonstrate equipment used in multi-pitch climbing
  - shoes, hydration pack, headlamp, walk off shoes, extra layers, etc.
2. Demonstrate rope management for belaying
  - options for flaking & stacking the rope so it is contained, organized, and ready for smooth deployment on the next pitch
3. Discuss voice commands, and alternatives when voice commands cannot be heard
  - rope pulls, radios, etc.
  - and the importance of establishing these ahead of time
4. Discuss gear management
  - racking options, slings, harness etc.
5. Discuss and demonstrate using slings on gear placements
  - when to extend, when is it okay to clip directly to your gear, types of slings
6. Discuss and demonstrate protecting the second on a traverse
7. Demonstrate various types of anchors and how to use each efficiently
  - gear anchors, bolted anchors
8. Demonstrate options for belaying the second
  - directly off anchor point, using auto-locking devices
9. Discuss and demonstrate transition process at anchors
10. Discuss the basics of leading and belaying with double/twin ropes vs. the usual single rope
11. Discuss reading topos & route finding
12. Break into teams to practice these skills
13. Review and answer questions

- 1.

## Station 2: Advanced rappel skills & anchor building

**Location: South wall (rappels), basement/south plaza (anchor building), indoor climbing wall (rescue skills)**

**Setup:**

- **3 easy routes to the top of the rappel anchors at the top of the wall**
- **1 route to the low middle section of south wall for munter rappel**
- **3 fixed lines on indoor wall for ascending skills**
- **Anchor boards set up in basement**

### Advanced rappel skills

1. Discuss and demonstrate how to attach two ropes together for a double-rope rappel
  - Pros/cons of an overhand knot
  - How to ensure the knot is good
2. Discuss how to coil the rope properly to ensure it falls smoothly and without getting caught in itself
3. Discuss and demonstrate the saddle-bag rappel
  - Pros/cons and when to use it
4. 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.
5. Discuss the importance of:
  - Having the knot, in a double rope rappel, over the edge of any lip – to prevent hang-ups
  - Extending the rappel anchor, if necessary, in high friction situations – be aware that an innocuous bit of lower angle slab below the anchor can produce enough friction to make retrieving the rope an arduous exercise
  - Having the first person down **do a test pull** – to ensure you will be able to retrieve the rope
  - Having the last person down attempt to choose a route so as to leave the rope clear of places where it might get stuck – horns, flakes, notches, etc.
  - Knowing/remembering which rope to pull – as they will be alternating with each rappel
6. Discuss and demonstrate the Munter rappel as a backup
7. Discuss and demonstrate how to ascend a rope using available slings

### Anchor building skills

1. Discuss the qualities of a good anchor
2. Discuss the use of “natural” protection to build anchors
3. Demonstrate the use of cordelettes and clove hitches
4. Practice building 3 point anchors using nuts, cams, and a cordalette
5. Demonstrate alternative anchor constructs:
  - a. 2 bolt anchor with slings and locking carabiners (bolted anchors commonly encountered on popular multi-pitch routes)
  - b. 3 point/equalized anchor using double slings, “sliding x” and knots
6. Demonstrate how to set up a belay for the second climber:
  - a. belay directly off the anchor’s “power point” using an “auto-locking” belay device
  - b. belay off your harness using a “directional” piece to redirect the belay rope
7. Quick review of deconstructing an anchor and setting up a rappel
8. Review anchor etiquette
  - a. no top roping directly through the chains
  - b. don’t monopolize the climb if you are part of a group
9. Start to memorize gear sizes in relationship to your hand size

## Session 3: Outdoor FT – Mock multi-pitch

|                             |   |
|-----------------------------|---|
| <b>Duration</b>             | 2 weekend days (option to split class over two days to reduce crowding on routes)   |
| <b>Location</b>             | Outdoor crag – Leavenworth (Mountaineers Dome, Clam Shell)  |
| <b># instructors needed</b> | 2 students to 1 or 2 instructors  |
| <b>Prep required</b>        | <ul style="list-style-type: none"><li>• If more than 1 crag is used, assign students and instructors to crag appropriate for their skill level.</li></ul> |

### Logistics

- Have 6-10 moderate/easy routes set up with top rope for multi-pitch mock leading. Identify suitable spots that can act as anchor points to break up the route into multiple pitches. These spots should have good spots to build an anchor and also be good to rest at.
- Students will pair up and tie together with a mock lead rope. That rope will be clipped into the gear as students mock lead up the route.
- There should be an instructor present at each anchor building spot to monitor and provide feedback.
- The (mock) leader will stop at pre-determined spots and build a gear anchor and belay the follower off that anchor.
- The follower will then climb and clean the route.
- The students will then flip leads, practicing efficient passing of gear and rope management.
- (Optional) Have a few moderate, good crack routes set up for students to top rope and practice their crack climbing skills

### Goals

- Each student should complete at least 3 mock multi-pitch climbs
- Each student should complete their anchor building cards
- Instructors should check all gear placements to ensure students are proficient with trad climbing and provide feedback where necessary
- Instructors should gauge student capability and provide feedback to the course leader so as to assign appropriate multi-pitch routes for the next FT

## Session 4: Outdoor FT – Multi-pitch climb

|                             |  |
|-----------------------------|--|
| <b>Duration</b>             | 2 weekend day (option to split class over two days to reduce crowding on routes)   |
| <b>Location</b>             | Leavenworth <ul style="list-style-type: none"><li>• Castle Rock</li><li>• R&amp;D</li><li>• Groundhog Day</li><li>• Tree/Stump Route</li><li>• Givlar's Crack</li></ul>  |
| <b># instructors needed</b> | Ideally 1 instructor per student (so each rope team has only 2 people)   |
| <b>Prep required</b>        | <ul style="list-style-type: none"><li>• Assign students &amp; instructors to routes appropriate for their skill level</li><li>• Email assignments out 5 days in advance so students can research their route</li></ul> |

### Logistics

- For three-person rope teams (2 students, 1 instructor), the instructor ties in at the middle and the students swap leads. Instructor should cover how to properly manage two coils of rope at anchors so as to avoid rope mess.
- For two-person rope teams (1 student, 1 instructor), the student has the option to choose to lead all pitches. Instructor should cover how to flip the rope at anchor stations.
- If there are any students not ready for multi-pitch, they should be assigned to crags where they can continue to practice their skills.

### Goals

- Each student should complete one multi-pitch climb safely and efficiently
- Instructors should check all gear placements and anchors to ensure students are proficient with trad climbing.
- 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.