



Seattle Alpine Scrambling Course

2026 Student Handbook



On the cover

Photograph by Robyn Pryor
Kyes Peak

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INTRODUCTION

Welcome to the Seattle Alpine Scrambling Community! We look forward to helping you complete this course and embark on a lifetime of mountain adventure. This course teaches you how to safely travel off-trail and scramble to beautiful mountain summits. Scrambles involve movement through brush and over steep snow and non-technical rock terrain. This course is a volunteer-led classroom and field instruction program designed to develop your alpine traveling skills and empower you with the experience necessary to safely scramble countless mountains here in the Pacific Northwest and beyond.

What is a Mountaineers Scramble?

A Mountaineers scramble is an off-trail journey with the goal of reaching a mountain summit. It may involve traveling through forests with thick brush, ascending steep snow slopes, and navigating non-technical rock terrain without using ropes—although scramble leaders carry ropes for emergency downclimbing situations. Scramble trips are led by qualified Mountaineers leaders who are skilled in leading groups safely off-trail. The pace of travel can vary from slow to fast, depending on the trip leader and the destination. Participants on scramble trips are those who have completed and passed the required Scrambling Course instruction or are current students who have completed the Snow Field Trip.

Learning Outcomes

- **Wilderness skills** – off-trail route finding, mountain weather, avalanche safety and low-impact recreation
- **Snow skills** – ice axe techniques (self-arrest and self-belay), kicking steps, plunge stepping and glissading
- **Rock skills** – three points of contact, friction movements, downclimbing techniques and protected downclimbing
- **Off-Trail Wilderness Navigation** – *a separate course offered by The Mountaineers* but required to graduate this course – backcountry and off-trail navigation using a topographic map, altimeter, compass, GPS & emergency communicators
- **Wilderness First Aid** – *a separate course offered by The Mountaineers* but required to graduate this course – elementary training for basic medical care in the wilderness using limited supplies and gear to make sound decisions
- **Low-Impact Recreation** – *separate badge offered by The Mountaineers* but required for this course – Understanding and practicing the principles of Leave No Trace to enjoy and share our wilderness areas responsibly

Keys to Success

- **Preparation** – be physically and mentally ready!
- **Commitment** – scrambling requires a positive mental attitude, as well as time and effort
- **Conditioning** – physical fitness is necessary for personal safety and overall enjoyment in the backcountry
- **Leave No Trace** – The Mountaineers is committed to conserving wild places and being environmentally responsible
- **Teamwork** – work and stay together; speak up for yourself and others when adjustments or help is needed
- **Participation** – You are responsible for the safety of yourself and those around you. You will learn from and practice with experienced volunteer instructors and will become increasingly self-sufficient with practice. Speak-up and participate to ensure safety comes first. Remember, we are a club, not a guide service.
- **Know your Limits** – sign-up for scrambles appropriate for your conditioning and comfort-level; please connect with the leader when you have any doubt
- **Read *Mountaineering: The Freedom of the Hills, 10th Edition (2024)*** – referred to as “Freedom 10” or just *Freedom* in the remainder of this handbook
 - You don’t need to read the entire book but be sure to read the assigned sections before each workshop and field trip
 - Read carefully; some of the material is complex
- **Ask Questions** – the course leaders and instructors want you to succeed – seek help and information when needed

Contact Us

- Question about the Seattle Alpine Scrambling Course?
 - Regular class: Email our team at Scrambling.Seattle@gmail.com
 - Compressed classes or pod classes: Email the Leader shown on the course page
- Question about another course or activity you're registered for? Email the Leader shown on the activity page
- General Questions about The Mountaineers? Email the club directly at info@mountaineers.org
- Need to report a formal, confidential complaint for issues dealing with harassment or discrimination? See the "Club Policies" section of this handbook

APPROXIMATE COURSE TIMELINE (for the regular class and the pods)

Note that exact dates for the following may be found on the course page. The CASC courses start in April with both the Snow and Rock Field Trips on one weekend in May

February

- Gear Lectures
- Gear Discount Evenings and Boot Weeks (optional)
- Avalanche Awareness Seminar

March

- Tiger Mountain Field Trips

April

- Snow Workshops and Field Trips

May

- Rock Workshops and Field Trips

June

- Experience Field Trips

GRADUATION REQUIREMENTS

Scrambling Course

WORKSHOPS	DATE COMPLETED
Gear	
Rock	
Snow	

FIELD TRIPS	DATE COMPLETED
Tiger Mountain	
Snow	
Rock	
Experience	

SCRAMBLES	DATE COMPLETED / PEAK / LEADER
Snow	
Rock	
Snow or Rock	

Additional Courses and Badges

COURSES	DATE COMPLETED
Navigation	
First Aid	

BADGES	DATE COMPLETED
Stewardship	
Low-Impact Recreation	
Avalanche Awareness	

Graduation Application

- Completed all of the above? Apply for graduation online under My Courses & Programs > Scrambling Course > Course Material > Graduation Application or by following this link: <https://goo.gl/forms/y18p2c5Vi3imYy7d2>
- **October 31** is the deadline but please do not wait until then, apply as soon as you've successfully completed all of the above. Note: it may take us one to two weeks to review and approve the application.

Pending First Aid?

- If your only remaining requirement is Wilderness First Aid, simply notify us within the application that you've completed the Scrambling Course and add the note "Pending first aid"
- Once you have the Wilderness First Aid Course badge on your profile, please follow up to let us know and become officially graduated

Second-year Extension

- You may request an extension to continue the course for a 2nd year (*at no extra cost*) if you're unable to complete all of the requirements during the 1st year – simply send an e-mail to Scrambling.Seattle@gmail.com
- During the 2nd-year you only need to complete the remaining requirements. Of course, you will be welcome to repeat any of the workshops or field trips as a refresher and we require you to participate in the Snow Field Trip during the 2nd-year since ice axe arrest is an easily forgotten skill
- **Note: the 2nd-year Extension will result in a suspension of your student badge for the season;** as such, you will be unable to participate in any scrambles between the two years, until you're a student again the subsequent season

COURSES REQUIRED TO GRADUATE

Off-Trail Wilderness Navigation Course

- This is a separate course offered by The Mountaineers
- **REQUIRED BEFORE EXPERIENCE FIELD TRIP** to continue with the Scrambling Course – there are a limited number of course dates available –**register for it as soon as possible!!**
- Course topics include: backcountry and off-trail navigation using a topographic map, altimeter, compass, GPS & emergency satellite communicators
- Upon registration for the course, especially through another Mountaineers' branch, make sure the course description says graduates will receive the Basic Navigation Course badge
- Equivalency may be granted. Visit the [Navigation Equivalency](#) webpage to learn more.
- More information: <http://mountaineers.org/learn/navigation>



Wilderness First Aid Course

- This is a separate course offered by The Mountaineers
- **REQUIRED TO GRADUATE** and continue scrambling with The Mountaineers, beyond the Scrambling Course – there are a limited number of course dates available – **register for it as soon as possible!**
- Course topics include: elementary training for basic medical care in the wilderness using limited supplies and gear to make sound decisions
- Upon registration for the course, especially through another Mountaineers' branch, make sure the course description says graduates will receive the Wilderness First Aid Course badge
- Equivalency *may be* granted if you have one of these certifications: WFR, WEMT, or RMAP. Contact the Wilderness First Aid Course Leaders to confirm.
- More information: <http://mountaineers.org/learn/firstaid>



ADDITIONAL BADGES REQUIRED TO GRADUATE

Stewardship Badge

- Day of trail work with an organization such as wta.org – some options are trail work, habitat restoration, tree planting, invasive species removal, etc.
- Find Mountaineer's sponsored events using the website (it must show the "Stewardship Credit" badge): mountaineers.org > [Explore](#) > [Find Activities](#) > "Stewardship" search filter checkbox
- Some other volunteering websites:
 - wta.org/volunteer
 - Earthcorps.org
 - Mtsgreenway.org
 - wawild.org
 - <https://www.seattle.gov/parks/volunteer/volunteer-calendar>
- If volunteering through another organization, contact the Seattle Program Center to get your badge upon completing your stewardship. E-mail info@mountaineers.org
- More information: <http://mountaineers.org/learn/stewardship>



Low-Impact Recreation Badge

- Watch a few concise videos and then take a quiz to achieve the Low-Impact Recreation badge
- For the videos and quiz see The Mountaineers website: mountaineers.org > [Conserve](#) > [Low-Impact Recreation Skills](#) > watch videos > take quiz



Avalanche Awareness Badge

- Either attend an evening in-person seminar or take a brief online course to achieve the Avalanche Awareness badge



RESPONSIBILITIES AND CLUB POLICIES

Harassment and Anti-discrimination

- The Mountaineers is committed to maintaining an environment that is free of verbal, physical and visual forms of harassment so that everyone can enjoy our club activities in a productive, respectful and fun environment
- The Mountaineers does not allow harassment of any kind by one member towards another including harassment based on: gender, sexual orientation, race, color, national origin, religion, age, disability, or marital or veteran status
- The Mountaineers is committed to an anti-discrimination policy in its programs and services
- The Mountaineers does not discriminate based on: race, religion (creed), color, ethnicity, national origin (ancestry), religion, sex, sexual orientation, gender expression, age, disability, veteran status, military obligations, immigration status, or marital status

Alcohol, marijuana and other drugs

- Alcohol and other drugs can affect your ability, judgment and safety – this can also affect group safety
- Alcohol and other drugs are not allowed before or during scrambling activities
- Even though marijuana is legal in Washington State, it is still illegal on federal land which includes most of the mountain areas where you will be scrambling – bringing marijuana on scrambles is not allowed

Firearms

- Firearms or any other items which will impair the safety or enjoyment of others are not to be brought on The Mountaineers premises or taken on any club activities

Additional policies

- The complete list of [The Mountaineers' policies](#) is located here: mountaineers.org > search for "board policies"

Reporting an issue

- Use this website form to file a formal confidential complaint about any issues: mountaineers.org > In the top header search for "[Behavioral Complaint Form](#)"

THE MOUNTAINEERS CLIMBING CODE

A set of guidelines has been devised by The Mountaineers to help people maximize their chances of safety in the mountains. This Climbing Code can be found on page 18 in *Freedom* along with a discussion of both its importance and limitations. For convenience, the Climbing Codes is provided here as well:

- Leave the trip itinerary with a responsible person.
- Carry the necessary clothing, food and equipment —the Ten Essentials (see Chapter 2 of *Freedom*).
- Wear a helmet to minimize your risk of traumatic brain injury from rockfall or other hazards.
- Rope up in exposed areas and for glacier travel. Anchor all belays. Always double-check a rappel setup before you trust it with your life.
- Keep the party together, and obey the leader or the majority.
- Challenge yourself, but do not climb beyond your ability and knowledge without a trusted mentor and/or guide.
- Do not let desire overrule your judgment when choosing a route or deciding whether or when to turn back.
- Follow sound mountaineering principles as set forth in books of recognized merit.
- Behave in a manner that reflects favorably upon mountaineering—for example, by exercising caution while climbing, paying attention to other parties, and including adherence to Leave No Trace principles.
- Carry effective communication devices that meet the needs of the trip (see Chapter 5 of *Freedom* for details).
- Be prepared to care for an injured climber.
- Consider purchasing global rescue insurance. Not all jurisdictions provide free evacuation and/or rescue services.

THE MOUNTAINEERS' EMERGENCY PLAN

Overview

- Mountaineers Scramble Trips are planned with safety as the foremost concern; however accidents do happen so please be sure to have an emergency contact person assigned to your Mountaineers' profile
- Occasionally a scramble trip may be very late getting home or may be forced to spend an unplanned overnight in the mountains and not return until the following day – do not promise friends and loved ones that you will be home by a certain time and do not commit to something the same evening following a trip
- On rare occasions, things go wrong in the backcountry and The Mountaineers may call your emergency contact person to pass along important updates about your safety and location
- The Mountaineers has an Emergency Line available 24/7 for calling and reporting overdue Mountaineers' trips – your emergency contact person should use this number: (206) 521-6030 to prevent multiple people from calling 911 about the same incident.
 - We repeat: for an overdue trip with The Mountaineers, your emergency contact should **call The Mountaineers Emergency Line first: (206) 521-6030** and not 911 directly
- The Mountaineers Emergency Line will coordinate action with 911 and rescue authorities

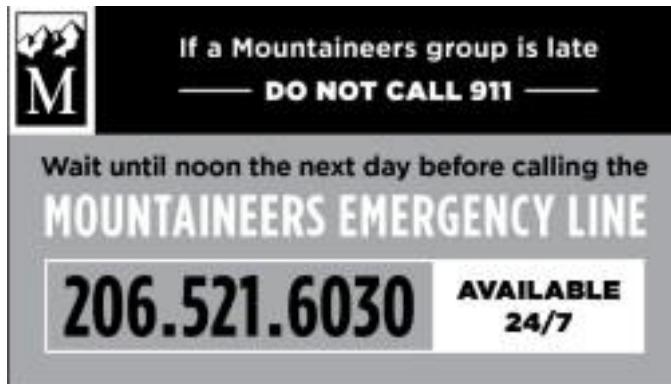
Your steps

- Update your emergency contact person on the website – it should not be a person you scramble with
- When going on scrambles with The Mountaineers let your emergency contact person know your latest return time which is always noon the day after your scramble – for example, if you're going on a Saturday scramble then tell them NOT to call the Mountaineers Emergency Line unless you're not back by Sunday at noon
- It's your responsibility to educate your emergency contact person about this procedure and to make sure they know not to call 911 – give them the cutout below, or send them an email
- If you're on a trip and there's a safety incident then you should call 911 – if your cell phone shows that it has no reception, still call 911 since all cell phones will send a boosted signal if it's 911 increasing your chance of reaching them – do not call the Mountaineers Emergency Line in this case
- After your scramble let your emergency contact person know you've returned safely

Your emergency contact person's steps

- If you're not back by noon the day after your Mountaineers Scramble then your emergency contact person should call the Mountaineers Emergency Line open 24/7 at 206-521-6030 – they should never call 911 directly
- The Mountaineers Emergency Line phone number can also be found on The Mountaineers website:

mountaineers.org "Contact Us" link at the bottom of the page 



COURSE EXPECTATIONS

WORKSHOPS

GEAR WORKSHOP

Objective: Introduction to the Seattle Alpine Scrambling Course and discussions about scrambling gear

What to Expect:

- **Introduction** presentation to provide an overview and expectations for the course
- **Gear Expo** set-up so you can wander the room, and visit various gear tables hosted by a variety of instructors to view and discuss your gear options

Gear to bring:

None...unless you have existing gear and are unsure whether it will be appropriate for this course.

Freedom 10 essential reading:

- Chapter 1 – First Steps
- Chapter 2 – Clothing and Equipment
- Chapter 7 – Protecting the Outdoors

GEAR DISCOUNT EVENINGS AND BOOT WEEK (optional but recommended)

Objective: Allow students to make good decisions for necessary new purchases

What to Expect:

- A casual after-hours shopping experience at one of Seattle's outdoor equipment stores
- Expert help from knowledgeable store employees as well as from Mountaineers Scramble leaders and instructors
- Discounts
- In addition to the Gear Discount Evening, the store will, for one week, provide students with expert assistance for fitting boots properly.

SNOW WORKSHOP (outdoors but without snow)

Objective: Introduction to steep snow travel skills, proper use of an ice axe and crampons

What to Expect:

- Practice walking in balance, self-belay, and self-arrest positions using your ice axe
- Overview of basic avalanche safety ratings and terrain awareness

Gear to bring:

- Ice Axe with taped adze
- Climbing Helmet (*always* worn when using an ice axe)
- Gloves (*always* worn when using an ice axe)
- Clothing appropriate for practicing self-belay and arrest outdoors (i.e. rain pants/jacket); expect to get muddy.
- Mountaineering boots, gaiters, and crampons

Freedom 10 essential reading:

- Chapter 16 – Basic Snow and Ice Climbing: pages 346-367; 376-381.
 - Note: we primarily teach the self-arrest grip; see Figure 16-10b.
- Chapter 20 – Avalanche Safety
- Chapter 27 – The Cycle of Snow
- The Appendix to this Handbook has important additional information

ROCK WORKSHOP

Objective: Introduction to rock scrambling skills, protected down-climbing and required gear for scrambling

What to Expect:

- Rotate through stations to practice scrambling: loose rock, boulders, rock slabs and ledges
- Practice protected downclimbing on rock

Gear to bring:

- Scramble pack, including the ten essentials and required scramble gear
- Clothing appropriate for practicing skills outdoors. Note you will be tying a harness around your waist and legs. Please do not wear jewelry of any kind.

Freedom 10 essential reading:

- Chapter 6 – Wilderness Travel
- Chapter 8 – Essential Climbing Equipment: Water Knot (page 162), Klemheist hitch (page 166, Figures 8-24a and 8-24b on page 167), Helmets (pages 168 and 169) and Improvised Sling Harness (page 170)
- Chapter 12 – Basics of Climbing: pages 177-187 (some of this material goes beyond what we do in scrambling; the most important pages are 180 -187 (but skip the sections on Flagging, Dynamic Moves, Negotiating Overhangs and Roofs)
- Chapter 23 – Risk Management
- Chapter 28 – Mountain Weather

FIELD TRIPS

TIGER MOUNTAIN FIELD TRIP

Objective: Try out new gear and demonstrate conditioning to participate in scrambling activities

What to Expect:

- A weekend day hike, 6+ miles and 2,000+ feet of elevation gain
- Opportunity to review gear (including ice axe basics) directly with an instructor
- Travel no slower than 2 mph pace with a full pack to measure conditioning level
- Practice setting up an emergency bivouac
- Use Navigation skills

Gear to bring:

Scramble pack, including the ten essentials and required scramble gear (NO CRAMPONS)

Freedom 10 essential reading:

- Chapter 4 – Conditioning

SNOW FIELD TRIP

Objective: Practice steep snow travel skills, proper use of an ice axe, crampons

What to Expect:

- Practice walking in balance with crampons and glissading using your ice axe, on steep snow
- Practice each self-arrest position with both hands, on steep snow
- Practice an emergency bivouac set-up, in snow
- Review of basic avalanche safety and terrain awareness

Gear to bring:

- Scramble pack, including the ten essentials and required scramble gear
- Clothing appropriate for practicing self-arrest outdoors (i.e. rain pants and rain jacket)
- Extra gloves, to replace if/when yours get wet

Freedom 10 essential reading/review: (same material as for the Snow Workshop)

- Chapter 16 – Basic Snow and Ice Climbing: see Snow Workshop for specific pages)
- Chapter 20 – Avalanche Safety
- Chapter 27 – The Cycle of Snow
- The Appendix to this Handbook

ROCK FIELD TRIP

Objective: Practice and apply rock scrambling skills and protected down-climbing

What to Expect:

- Practice scrambling loose rock, boulders, rock slabs and ledges as the terrain allows
- Practice protected downclimbing on rock

Gear to bring:

- Scramble pack, including the ten essentials and required scramble gear (don't bring ice axes or crampons)
- Clothing appropriate for rock scrambling outdoors

Freedom 10 essential reading/review: (same material as for the Rock Workshop)

- Chapter 6 – Wilderness Travel
- Chapter 8 – Essential Climbing Equipment: see Rock Workshop for specific pages
- Chapter 9 – Basics of Climbing: see Rock Workshop for specific pages
- Chapter 23 – Risk Management
- Chapter 28 – Mountain Weather

EXPERIENCE FIELD TRIP

Objective: An overall assessment of scramble skills acquired throughout the course – including safe movement on steep snow and rock terrain, ice axe self-belay, arrest and glissade skills, crampon use and navigation techniques to demonstrate proficiency and preparation to continue participation in scrambling activities for the season

What to Expect:

- Weekend day scrambles at various locations within the Teanaway River Valley (or equivalent area), where each student will be required to demonstrate proficiency and safety:
 - Travel over steep snow and rock terrain
 - Using an ice axe to walk in balance and to self-belay
 - Using an ice axe to self-arrest in each position
 - Using an ice axe to glissade
 - Using crampons on hard snow
- **Note:** Depending on snow conditions and route selection, it is very likely that it will be necessary to ford Bean Creek

Gear to bring:

- Scramble pack, including the ten essentials and required scramble gear
- Stream-crossing shoes (sandals with a strap around the heel are OK, but not flip-flops)
- Clothing appropriate for practicing self-arrest outdoors (rain pants and rain jacket); also extra gloves, to replace if yours get wet
- (Optional) Small towel to dry your feet after the stream-crossing
- (Optional) Overnight gear, if you plan to camp (sleeping bag, pad or air mattress, tent, etc.), and extra water because there is no potable water nearby

Logistics for an extended, weekend trip (overnight option)

Here is some basic information to help you plan your weekend ahead of time. **Please remember that more specific information will be emailed to everyone prior to the field trip.**

- Parking is very limited at the trailhead; a variety of carpool options will be shared in advance
- You can treat this like a normal field trip, being sure to arrive at the trailhead on time in the morning and then driving home at the end of the day. Alternatively, you can camp near the trailhead the night before (see below for overnight camping options)
- Please remember the Teanaway area is approximately a 2.5 hour drive (plus traffic) from the Seattle area; be sure to check road conditions and the Snoqualmie Pass conditions the night before traveling

Overnight Options

- There are numerous nearby campgrounds available where you can camp before and/or after this field trip; these three are all within 20 minutes of any of the possible trailheads
 - The Beverly Campground is the most centrally located
 - 29 Pines Campground
 - De Roux Campground
- Cle Elum is the nearest town, if you prefer hotel accommodations

CONDITIONING

Preparation

- Scrambling is a very strenuous activity
- Inadequate conditioning can contribute to a loss of alertness and an inability to respond appropriately to the demands of the environment: this could prevent a group from reaching the summit or jeopardize party safety. Fitness is safety!
- Be as fit as possible to enjoy the course and maximize your opportunity for success
- Be prepared to carry a 20 to 25-pound backpack for 6–10 miles while climbing 2500–5000 feet in elevation
- People who do a significant amount of running sometimes discover they are not as prepared as they might think for scrambling – runners use different muscles, rarely wear heavy backpacks and do not usually gain as much elevation

Getting started

- Start your conditioning right now. Go out and hike up some local trails, such as Tiger Mountain, Tiger Mountain Cable Line, Mount Si, Rattlesnake Ledge, Mailbox Peak, Mount Washington, and many others
- Some of the above trails can be icy during the first few months of the year; to hike them safely, you may need trekking poles and traction devices (discussed in the Gear section on page...)
- Get out regularly and look for trails with at least 5 miles round-trip and 2,000 feet of elevation gain
- Work progressively to build leg and core: strength, agility, flexibility and balance
- Unable to easily get to the mountains? Take advantage of urban locations with lengthy outdoor staircases which you can do laps on while wearing your pack (Howe Street stairs, Golden Gardens, etc.)
- Unable to get outside? Find a gym and set the treadmill on a high incline while wearing a heavy pack
- To increase backpack weight, we recommend you carry containers of water (8.4 pounds/gallon or 2.2 pounds per liter) and then dump the water before descending

Goal

- An indicator of whether you are in reasonable shape for scrambling is to measure your time up the Mount Si trail to the base of the summit "haystack" (4 miles and 3200 feet of elevation) in 2–2.5 hours carrying a 20–25 pound backpack.
- Build up stamina rather than just racing to the top as fast as you can; not being exhausted on the summit is more important than the amount of time it took to get there
- Work on improving your time to the summit with the same backpack weight, or slowly increasing your backpack weight with the same summit time – both methods are effective, but try not to increase two training factors at once.
- Keep track of your progress; one way to do so is to make a copy of the conditioning log on the next page.

CONDITIONING LOG

Date	Destination	Miles	Elevation	Weight	Time
	Totals:				

CHECKLISTS

PRE-COURSE

- Register for The Mountaineers Off-Trail Wilderness Navigation Course; you must complete this before June
- Register for The Mountaineers Wilderness First Aid Course; you must complete this before November
- Complete Low-Impact Recreation badge activity, through The Mountaineers, before November
- Complete a Stewardship badge activity, through The Mountaineers (or another organization), before November
- Purchase "*Mountaineering Freedom of the Hills*", 10th edition
- Update your Mountaineers profile for:
 - The name you prefer to be called (i.e. Steve instead of Steven or Rory instead of Lorelei)
 - (optional) add a photo
 - Carpool preferences
 - Emergency Contact Information
- Discuss The Mountaineers Emergency Plan with your emergency contact
- (optional) Follow "Mountaineers Seattle Alpine Scrambling" on Facebook
- (optional) Follow "Mountaineers Marketplace" on Facebook, for buying / selling gear
- Read the "FAQ" section of this handbook

PRE-TRIP

Before every workshop, field trip, or scramble, be sure to:

- Review the "Course Expectations" outline and "FAQ" sections of this handbook
- Read associated chapters from "Freedom of the Hills" to get better acquainted with the material and expectations
- Reference the packing list to ensure you have everything
- Read the Leader Notes corresponding specifically to the upcoming activity, on the Mountaineers website
- (Optional) Arrange carpooling the week prior using the roster tab on the activity page
- Check the mountain weather and any recent trip reports, specific to where you are headed

GEAR

Your primary sources for information about gear are Chapter 2 of *Freedom* and the Gear Workshop. At the workshop, several instructors will bring their gear, so that you can see specific examples of what we recommend. Also at the workshop, you will learn much more about ice axes and mountaineering boots. In particular, we will determine the correct length of ice axe for you.

It is a good idea to wait for the Gear Workshop before buying new gear, especially ice axe and boots. You should bring whatever gear you already own, so that we can check whether it meets our specifications.

As mentioned earlier in this handbook, there will be at least one Gear Discount Evening (plus Boot Week) at a local outdoor equipment store that will take place between the Gear Workshop and the Tiger Mountain Field Trip.

Although some of the most enjoyable scrambles are overnight or multi-day trips, we do not cover backpacking in this course. Consequently, we do not cover tents, sleeping bags, stoves, etc. in this handbook.

Note: We do not require that you purchase snowshoes, crampons or any sort of satellite communication (SATCOM) device for this class. At least one person should carry a SATCOM device on every trip, but we don't require everyone to do so. Some specific trips require snowshoes and/or crampons, but you can choose not to go on those trips. However, crampons are required for the Snow Workshop, Snow Field Trip, and Experience Field Trip. We have a limited number of crampons available to borrow, but strongly recommend buying a pair. With your own crampons, you can adjust them to your boots just once, and can practice putting them on at home.

The remainder of this section summarizes the gear needed for scrambling, along with some information about where to acquire it.

SUGGESTED PARTIAL SCRAMBLE PACKING LIST

- Pack the **Ten Essentials** and **Required Scrambling Gear** for every trip, unless explicitly told otherwise
- You should make your own checklist using this one as a guide
- This focus of this checklist is the minimum gear needed for a scramble
- See pages 42 and 43 for a much more detailed list, including many optional items – you can ignore climbing equipment on that list other than what we require for scrambling

Ten Essentials

- Navigation
- Headlamp (with extra batteries)
- Sun Protection
- First Aid Kit
- Knife plus Repair kit
- Fire
- Emergency Shelter
- Extra Food
- Extra Water
- Extra Clothes

Required Scrambling Gear

- Backpack
- Mountaineering boots
- Climbing helmet
- Ice axe
- Protected downclimb kit
- Clothes / Food / Water

Other Essential Gear

- Gaiters
- Ice axe leash
- Insect repellent
- Toilet kit

- Waterproof sacks or backpack water barrier

Gear to Bring When Specifically Required

- Crampons
- Snowshoes

Other Gear That is Often Useful for Many Scramblers

- Approach shoes
- Hand warmers
- Sit pad / Insulation pad
- Traction devices (such as microspikes)
- Trekking poles
- Whistle

Car Kit

- Carpool money
- Trailhead parking pass
- Bag for boots and muddy clothes
- Clean clothes for the drive home

TEN ESSENTIALS

Note that one of the main reasons to always bring the Ten Essentials (especially 6 through 10) is to enable you to survive an unexpected night in the wilderness. This is important for hiking, but even more important for scrambling. On a trail, if it gets dark before you get back the trailhead, you can probably see well enough by headlamp to finish the trip. However, a headlamp doesn't give you enough light to negotiate some types of scramble terrain safely. So, if you are off trail and expect it to get dark before you can reach a trail, you will need to look for a place to set up a bivouac while you still have some daylight.

- **Navigation (See *Freedom*, pages 38 - 40; also, chapter 5)**

If you have already taken the Off-Trail Wilderness Navigation Course, you know what Navigation gear you need. If you haven't, be sure to register for that course as soon as possible; you need to complete it by the beginning of June. If you don't have a compass yet, be sure to reference the PDF titled "Required Compass Features" accessible from

<https://www.mountaineers.org/locations-lodges/seattle-branch/committees/seattle-navigation-committee/seattle-navigation-website/altimeter-information-page>

Here are a few reminders:

See Chapter 5 of *Freedom*, especially the sidebar on page 99: "Printing Digital Maps". Note in particular, that contour lines should be 40 feet apart. 80 foot contour lines, such as you will find on most Green Trails maps, do not show enough detail for scrambling. Remember that you need to bring a paper map on every scramble.

Also see Chapter 5 for information about how to mitigate the vulnerabilities of electronic devices.

2. Headlamp (see *Freedom*, pages 39 - 40)

Be sure to bring extra batteries. As mentioned on page 40 of *Freedom*, bringing your extra batteries in an extra headlamp is a great idea.

3. Sun Protection (see *Freedom*, pages 40 - 41)

Protecting your eyes and skin from the sun is critically important; carefully read this section of *Freedom*. Note that if your sunglasses don't block light from the sides, you can create side shields by folding over pieces of duct tape with holes in the middle.

4. First-Aid Kit (see *Freedom*, pages 41 and 44)

- You'll learn which items to include during the Wilderness First Aid Course. Note that small, frequently used items (ibuprofen, blister care, band aids, etc.) can be in a Ziploc bag near the top of your pack.

5. Knife and Repair Kit (see *Freedom*, page 44)

6. Fire (see *Freedom*, page 44)

7. Emergency Shelter (see *Freedom*, page 44)

Note that most products marketed as emergency blankets are so light and flimsy that they will not stand up to even moderate rain and wind.

8. Extra Food (see *Freedom*, page 44)

9. Extra Water (see *Freedom*, page 44)

10. Extra Clothes (see *Freedom*, pages 44 - 45)

Also, for much more on clothing, see pages 20 - 30 in *Freedom*.

REQUIRED SCRAMBLING GEAR

Backpack (See *Freedom*, pages 34 – 37)

- 30L-40L capacity for day trips
- 50L-60L capacity for multi-day trips
- Make sure there's a specifically designed method for attaching your ice axe to the outside
- If you can't decide which backpack to get, fill them with weight and select the most comfortable one

Mountaineering boots (See *Freedom*, pages 30 – 34)

When choosing boots, the key to happy feet is all about the right fit. A proper fit means considering your boots, socks, and insoles as part of a complete footwear system. To get the best comfort, it's essential to purchase socks and insoles at the same time as your boots and try on different combinations of each. This way, you'll find what works best together for your comfort and performance

- For scrambling you want 3-season (light to medium duty) mountaineering boots. They should not bend under your body weight with only your toes on a ledge. Backpacking boots are usually not stiff enough and make scrambling difficult. Heavy-duty mountaineering boots can be too heavy, warm, and uncomfortable for scrambling. Trail running shoes are not allowed in this course or on actual scrambles.
- Stiff toes are essential to allow you to kick steps in the snow
- Stiff soles with a shank or partial shank are required for edging on rock hard snow and to accept crampons
- Your boot should be as stiff as the boot on the right-hand side of Fig. 2-5 on page 32 of *Freedom*.
- Allow adequate time in a store to try on and walk around in multiple boots
- Your toes should never be able to touch the front of your boots
- Remember that hiking socks are usually thicker, and some people wear sock liners to prevent blisters. When trying on boots at the store, wear your thick hiking socks.
- Try to scuff your feet firmly forward, ideally on a downward slope, to make sure your toes never touch
- Some factory insoles do not provide adequate arch and heel support, so select good replacement insoles and use them when trying on boots as they can drastically alter the fit of the boot
- Consider insulation. Feet can get very cold in boots on warm days in snow
- To clean muddy boots just let them dry then use a clean brush; don't use hot water to clean them
- At the Gear Workshop, you will be shown how stiff the boots need to be, and you will see examples of boots appropriate for scrambling
- **Don't buy new boots before the Gear Workshop**

Climbing helmet (See *Freedom*, pg. 168)

- Must be UIAA or CE approved for climbing
- Unacceptable types are bicycle, kayak, motorcycle, snowboard/ski and other non-climbing helmets
- Provides some protection in the event of a fall and protects against rockfall from above
- Climbing helmets also have clips around the side to help secure your headlamp strap
- Should be adjustable enough to fit over stocking caps

Ice axe (See *Freedom*, pg. 348 - 349)

- The ideal axe is a general purpose alpine axe with a straight shaft and an adze
- Specialized ice climbing tools, ultralight trekking axes, and whippet ski poles are not suitable
- It is important for the axe to be the correct length; when holding the axe with the self-arrest grip, the tip of the spike should be level with the ankle bone
- For most people the correct length is between 60 cm and 75 cm
- At the Gear Workshop, you will learn what the correct length is for you; your instructors will have you hold axes of different lengths until they determine what is the right size for you
- Too often, retail workers will try to talk you into buying an axe that is too short; please ignore their length recommendation and follow the guidance you received at the Gear Workshop
- **Do not buy a new ice axe before the Gear Workshop**
- The pick and spike of an ice axe are dangerously sharp, so when you are not using it, you need to attach it to your pack so that it is secure and so that those dangerous points are unlikely to come close to your fellow scramblers
- Even when your axe is securely attached, you need to be aware of others, especially behind you, when putting on or taking off your pack so that the pick and spike don't swing too close to anyone
- For extra protection, it is recommended that you buy pick and spike protectors
- Spike protectors are especially recommended because the spikes on new ice axes are very sharp; also, spike protectors are cheap

Protected downclimbing kit

- This will be given to you at the Rock Workshop
- Contents:
 - 1/2 inch webbing to make an emergency harness – once it's tied don't untie it; if you need to resize it, get help from an instructor
 - Locking carabiner
 - 5mm cord for connecting to a rope
- This kit is for emergency use only

Clothing appropriate for the weather and conditions (See *Freedom*, pg. 20 - 30)

Freedom covers this topic very thoroughly; we will emphasize a few things here.

- The best way to regulate your temperature as to have multiple layers of clothing that can be quickly put on or taken off
- Your outermost layer should have a hood that is large enough to fit over your helmet
- Don't wear cotton! If it gets wet, it stays wet. See the discussion on page 23 of *Freedom*
- Extra gloves are always recommended, but especially when you expect to be practicing self-arrest or glissading

Food (See *Freedom*, pages 76 – 80, especially “Lunches and Snacks” on page 79)

- Food is energy!
- Inexperienced scramblers sometimes fail to consume enough calories and run out of energy

Water (See *Freedom*, pages 70 - 75)

- Bring at least two liters; some scramblers will find that they always need more than two
- For strenuous scrambles or on hot days you'll need much more water
- An alternative to carrying more water is to bring a water filter, but only if you know there is a suitable water source
- There are treatments to make water safe to drink; see *Freedom*, pages 74 -75.
- See *Freedom* for pros and cons of bottles vs. bladders, and for cold weather considerations
- Start hydrating the night before a scramble and continue drinking water in the morning during your drive

OTHER ESSENTIAL GEAR

Gaiters (See *Freedom*, page 34)

- Used to keep snow/rocks/dirt out of your boots
- Although we don't require gaiters, you will definitely want them
- On the Snow Field Trip and early season scrambles, if you don't wear gaiters, it will be impossible to keep snow out of your boots, resulting in cold feet and a miserable experience
- When buying, make sure they fit properly – they need to be large enough to wrap around your mountaineering boots, but tight enough around the bottom to prevent snow from getting pounded up inside them
- Tall gaiters are great in the snow – if you are only buying one pair then buy tall ones like those in Figure 2-6b on page 34 of *Freedom*
- Short gaiters are nice in the summer

Ice axe leash (See *Freedom*, page 349)

- Used on steep snow or any place where dropping your ice axe would result in its loss
- Some scramblers use a long one, some use a short one and some people don't use them at all. However, you need to *have* some form of leash available on actual Club scrambles, even if you ultimately choose not to use it – "use" and "have" are two different things.
- Talk with a few instructors about why they prefer their method
- You can make one from 1/2 inch webbing, or you can buy a specifically designed leash

Insect protection (See *Freedom*, pages 46 – 47)

- Mosquitos are widespread in the Cascades and Olympics
- Ticks are not as common here, but their range is expanding

Toilet kit (See *Freedom*, pages 46 and 144 – 146)

- Be responsible for managing your own waste
- Read these sections of *Freedom* carefully

Waterproof sacks or backpack water barrier

- Most backpacks are not waterproof, so you need to come up with a solution to keep the contents dry
- Needed in the rain and when setting your pack down in the snow
- A few different ideas:
 - Pack covers fit on the outside; heavy rain still gets in, so make sure it fits over your ice axe
 - Pack liners line the inside of your backpack; trash compactor or contractor bags from the hardware store work well
 - Large Ziploc bags work well to keep specific items dry

GEAR TO BRING WHEN SPECIFICALLY REQUIRED

Crampons (See *Freedom*, pg. 349 - 352)

- Used in the spring and summer on hard snow and ice and on wind-blown slopes in the winter
- They are required for the Snow Workshop, Snow Field Trip, and the Experience Field Trip
- Only a few scramble trips require crampons, and you are not required to go on any of those trips
- If you're not sure whether you should bring them on a scramble then check with the scramble leader
- You can rent them from various outdoor stores; see retailer list
- Be sure to take your boots with you when shopping for crampons to ensure a proper fit
- Crampons with 10+ points, including 2 horizontal front-points, work great
- Lightweight aluminum crampons are ideal for scrambling; steel crampons are also acceptable but are generally heavier than aluminum
- Full straps for the heel and toe make them more versatile and are cheaper. If your boots have crampon grooves you can buy a set with metal bars which lock into the grooves
- Purchase crampons that allow you to adjust the length without a screwdriver
- Anti-balling plates can be a nice feature in certain types of snow conditions but they aren't required
- New crampons are extremely sharp
- There are several ways to carry crampons on your backpack and to keep the points from cutting your backpack and other gear: sandwiching a thick foam rectangle, a Tyvek bag, or a special crampon bag (costs money and weighs more). Talk with your instructors to figure out what works best for you.

Snowshoes

- There may be a few early season scrambles that require snowshoes; you are not required to go on any of those trips
- Snowshoes are not required for any of the field trips
- Most of you won't need snowshoes until and unless you want to go on winter scrambles after the regular scrambling season ends
- Get very aggressive snowshoes with large crampon teeth and lateral teeth on both sides
- Some types have a heel lift which can be helpful when ascending snow
- Avoid tube-frame styles since those usually don't have lateral teeth
- Snow in our local mountains isn't usually dry powder, so you don't need long snowshoes based on the manufacturers' weight recommendations – usually you want the shortest ones. Shorter ones are also much safer when descending
- Talk with a few instructors about the type they prefer

OTHER GEAR THAT IS OFTEN USEFUL

Approach shoes

- Especially useful when there's an exceptionally long trail before the scramble begins
- Before wearing them get approval from the trip leader
- They should have grippy soles such as Vibram or equivalent

Hand and Toe warmers

- Have an expiration date
- Great for emergencies such as an unplanned overnight
- For people whose extremities get cold easily, hand warmers can be essential
- Some gloves have slots for hand warmers
- Reviews are mixed concerning rechargeable hand warmers, but the technology seems to be improving

Sit pad/insulation pad

- Important insulation barrier between you and the ground, especially on snow
- Very useful for an unplanned overnight
- Can be used as a splint for injured limbs
- Some backpacks have a removable pad which doubles as an insulation pad

Traction Devices (See *Freedom*, pages 349, 355)

- Used to travel along icy trails.
- They need to be rugged, so inexpensive Yaktrax won't work
- The Kahtoola MICROspikes and the Black Diamond Blitz Spike Traction Devices are great options

Trekking poles (See *Freedom*, pages 45-46)

- Some people use two poles, some people use one, others use none and others prefer an ice axe instead
- Helpful for balance and support on steep ascents and reducing impact to knees on descents
- Useful for stream crossings
- Poles which collapse into two or three sections minimize brush snags when attached to your backpack
- Some have component parts that are replaceable when they break
- Whippet ski poles (see *Freedom*, page 352) are not appropriate for scrambling

Whistle (See *Freedom*, page 47)

- For emergency signaling (three blasts)
- Some backpacks have built-in whistles but often they are quiet and inaudible in rugged terrain

CAR KIT

Car kit for the drive home

- Comfortable clean shoes and socks
- Water – for drinking after your trip and for washing your hands and face
- Dry clothes so you're not wet and stinky on the drive home, especially if you are carpooling
- Wet gear bag for muddy boots and wet clothes, especially if you are carpooling

Parking pass (if driving)

- Most trailheads require a parking pass for each car: daily ones are expensive so annual passes are much more cost-efficient
- If you do not have one then you can choose to carpool with someone who does
- You can buy them online and at stores such as Fred Meyer, REI, Big 5 Sporting Goods, etc.
- The 3 passes we use the most are:
 - America The Beautiful Pass – National Parks entry and National Forest trailheads
 - Northwest Forest Pass – National Forest trailheads (not needed if you have an America The Beautiful Pass)
 - Discover Pass – for State Park trailheads (Tiger Mountain, Mailbox Peak, Mt. Si, etc); it is also required on land managed by the Department of Natural Resources

Carpool money (if carpooling)

- Carpooling is always optional
- If you choose to carpool then bring cash to pay your driver, be generous
- If you prefer using Venmo, make sure ahead of time that your driver will accept it
- What you pay is not just for gas, it is also for the convenience of not having to drive home when you are tired and it is dark, for the wear and tear to the driver's vehicle, for the dirty mess left in the driver's vehicle, for the risk of theft and damage at the trailhead, etc.

PURCHASING GEAR

Shopping Tips

- Do not buy new gear until after you've attended the Gear Workshop since you will receive a lot of information at the Gear Workshop to help you make better buying decisions
- Read chapter 2 ("Clothing and Equipment") in *Freedom*
- Some gear can be rented: crampons, ice axe, climbing helmet, snowshoes
- Each piece of gear offers many options, so decide what works best for you based on cost, weight, availability, features, etc.
- Ensure proper fit and comfort since you may wear this gear all day
- Members of The Mountaineers receive special discounts and benefits

Some Gear Sources (discount amounts may change)

Store	Website	Notes	Member Discount
Arc'teryx	arcteryx.com	Seattle	
Ascent Outdoors	ascentoutdoors.com	Seattle, Surplus, Rentals	
Backcountry	backcountry.com		15% most items
Big 5 Sporting Goods	big5sportinggoods.com		
Eddie Bauer / First Ascent	eddiebauer.com		
Feathered Friends	featheredfriends.com	Seattle, Rentals	10% in store
Fjallraven	fjallraven.us	Seattle	20% in store
Mountaineers Marketplace	facebook.com/groups/377304859047281	The Mountaineers, Used	
Mountain Hardwear	mountainhardwear.com	Seattle	15% in store
North Face	thenorthface.com		
Outdoor Research	outdoorresearch.com	Seattle, Rentals	15% at Seattle Store
Patagonia	patagonia.com	Patagonia	patagonia.com
Play It Again Sports	playitagainsports.com	Used	Play It Again Sports
REI	rei.com	Many locations, Rentals	REI
REI Used	rei.com/used	Used	REI Used
Wildernest	wildernestoutdoorstore.com	Bainbridge Island	

Some repair shops

Chick's Shoes	chicks-shoes.com	Mercer Island, boots
Dave Page Cobbler	davepagecobbler.com	Seattle, boot and shoes
Rainy Pass Repairs	rainypass.com	Seattle

FAQ

Scramble Categories

Snow scrambles:

- Traditionally begin on or after April 1 during the early Spring and Summer seasons
- Involve significant snow travel
- Require an ice axe and climbing helmet
- Not to be confused with “winter scrambles”; a snow scramble can be on a sunny 70°F day in June or July
- Students can register for snow scrambles with their student badge; however, the date of the scramble must be after the Snow Field Trip -- register as soon as possible after completing the Field Trip since the snowpack may be unpredictable

Rock scrambles:

- Traditionally begin after the mountain snow melts and end around October 31 before the Winter season
- Involve significant off-trail travel over rock (scree, boulders, blocky outcroppings, low-angle slabs, etc.)
- Students can register for rock scrambles with their student badge; however the date of the scramble must be after the Rock Field Trip
- Some scrambles qualify as either a snow or rock scramble

Winter scrambles:

- Traditionally begin on or after November 1 and end around March 31; otherwise known as the Winter season
- Available for Scrambling Course graduates only
- Involve colder weather and significantly shorter daylight hours
- Avalanche safety is generally a higher concern
- Backpack weight is significantly higher (snowshoes, crampons, warmer clothes, more emergency overnight clothes, shovel)

Strenuous (S) and Technical (T) Scramble Ratings

Strenuous and technical difficulty ratings on the website range from 1 (easier) to 5 (challenging). This does not correspond to any other popular rating or class. This is a separate rating created by The Mountaineers specifically for rating scrambles

(S)trenuous Level:

- A rating based mostly on trip mileage and elevation gain but can be higher if there is a lot of brush to fight through
- It does not take into account variable factors such as pace or temperature
- Scrambles generally also list the mileage and elevation gain
- Examples:
 - An S3 scramble on a 90-degree day may feel like an S5 trip
 - A very fast-paced S3 scramble may feel like an S4 trip

(T)echnical Level:

- A subjective rating based on the combination of the technical movement difficulty and the exposure
- This rating is based on the most difficult part of the scramble
- Does not consider the route conditions (wet rocks, snow level, wind, visibility, ice, etc.)
- A fall with low exposure would not be serious, but a fall with high exposure would be disastrous
- One T4 scramble may seem easy to you but another T4 scramble may scare you
- Examples:
 - A T4 rock scramble could have hard technical moves 5 feet off the ground (high difficulty, low exposure)
 - A T4 rock scramble could be an easy route along a very narrow ridge (low difficulty, high exposure)

Register for a Scramble

- Search for scrambles on The Mountaineers website:
 - mountaineers.org > Explore > Find Activities > "Scrambling" checkbox > On the trip listing click "Register"
- Each year there are 250–300 scrambles listed on the website
- Most scramble listings have a "Leader's Notes" section; **read it!** It may indicate restrictions on who can sign up
- Only sign up for scrambles within your level of ability
- Each trip listing will tell you when the sign-up window opens and closes
- You can sign up for scrambles with other Mountaineers branches, subject to restrictions in the Leader's Notes
- Some trips fill up quickly, so if there's a trip you really want to do then put a reminder in your calendar for the sign-up time
- If a scramble is full, you can join the wait list; participants will often cancel, and you'll get on the scramble. See the "FAQ" section of this handbook on waitlists
- Check the website often since scrambles are added daily and often with only a week's notice; see the "FAQ" section of this handbook for new trip email notifications
- Occasionally a scramble will be "Leader Permission Required" meaning you can't sign up until after you have written approval from the scramble leader: click the "Request Leader's Permission" link to send an email, but again, do so only after reading the Leader's Notes to verify that you're eligible to go on that trip

Canceling from a Scramble

- If you need to cancel from a trip, do so as soon as possible, especially if there is a waitlist
- Canceling at the very last minute is inappropriate; do so only when absolutely necessary
- Never be a no-show, otherwise everyone will be waiting for you at the trailhead – multiple no-shows may jeopardize your future scramble sign-ups
- You should cancel from a trip if you're sick or have an injury that could limit you on the scramble, otherwise you may slow down the group too much or cause a group safety issue
- If the sign-up window is still open then cancel yourself by clicking "Cancel" on the trip listing
- If the sign-up window has closed then contact the scramble leader

Waitlists

- If a scramble is full then you can join the waitlist; very often participants will cancel and you will get on the scramble
- If you are on the waitlist then be prepared to go on the scramble because you may get onto the scramble at the very last minute
- If you're on a waitlist but can no longer go on the scramble, or you want to make other plans instead, then please cancel from the waitlist as soon as possible as a courtesy to the participants who are below you on the list
- You can check where you are on the waitlist in the Activities section of your profile
- If the scramble you want to get on is full then look for other scrambles happening on the same day; a peak you have never heard of may turn out to be a wonderful adventure

New trip email notifications

- Be among the first to know when a scramble leader lists a new scramble on the website by signing up to receive notifications
- The simplest way to do this is to edit the "Alerts & Notifications Preferences" section of your "My Profile" page on the Mountaineers website
- This can be especially helpful when you want to be alerted about trips that are scheduled on short notice

Carpools

- The Mountaineers offers tools to help you set up carpools but it's always optional
- Carpooling is good for the environment, but it's also beneficial for us since some trailheads have limited parking.
- Scrambling Course field trips have large groups, so carpooling is even more important and you will receive emails before your field trips detailing specific carpooling logistics
- If you are a carpool rider then make sure to bring money for your driver, see the "Required Scramble Gear" section of this handbook about paying your fair share for carpools

Weather and road conditions

- Mountain weather forecasts:
 - <http://mountain-forecast.com>
 - <http://weather.gov> – tip: on a scramble listing click "full route/place details" then "weather forecast"
 - If you right-click on the area of interest on a Caltopo map, the resulting menu will include "NOAA Forecast"
- General weather forecasts:
 - <http://www.atmos/washington.edu/data/>
 - <http://accuweather.com>
 - <http://wunderground.com>
 - <http://windy.com>
- Avalanche forecasts:
 - <http://nwac.us>
- Trail and forest road conditions:
 - <http://wta.org>
 - <http://www.fs.fed.us>
 - <http://peakbagger.com>
- Road conditions and cameras:
 - <http://wsdot.com/traffic/passes>
- Mountain cameras:
 - Mt Rainier has an entire webcam page from all around the park
 - Mount Si live video feed: <http://146.129.248.180/northbend.html>
 - Check ski resorts, etc.

Frame of mind while on scrambles (expedition behavior)

- Scrambling is a team activity that requires collaboration and trust; be committed to the group's goal, and remember that success depends on working together
- Approach each situation with humility, ready to learn and improve
- Arrive at the trailhead prepared – research the route in advance, bring all the necessary equipment, and be physically and mentally ready
- You are an active participant since The Mountaineers is not a guide service – that means always speak up if you have a concern, make safety your number one priority, make sure everyone in your group is accounted for, help someone if you see them struggling or bring the difficulty to the leader's attention
- If the pace of the group is slower than you would prefer, you should resist getting far ahead of everyone; instead, stay with the team and offer to help slower scramblers by taking some of the weight out of their backpacks, or stay in front and help with route finding or kicking steps
- You should still have at least 50% of your energy at the summit; this reserve is crucial for a safe descent
- Always monitor your physical and mental state and consider how it affects the group
- Reaching the summit is not the ultimate goal; prioritizing safety over reaching the top prevents dangerous decisions
- A successful scramble means everyone returns home safely and has a good time; focus on the group's success and well-being

Low-impact recreation reminders

Pack it in, pack it out

- Toilet paper and feminine hygiene products – always pack it out, never bury it
- Solid human waste above the tree line – always pack it out, never bury it
- Solid human waste below the tree line – either pack it out or bury it in a small hole dug 6–8 inches deep in dirt (not snow) and at least 200 feet from water, campsites and trails – never bury toilet paper or feminine hygiene products – ice axes work great for digging holes
- Pack out all trash and leftover food (including fruit and vegetable peels, seeds, etc.)

Leave no trace

- Leave rocks, plants and other natural objects as you find them – do not add rock cairns or flagging
- In popular areas – use trails and never cut switchbacks, also walk in the middle of trails even when muddy
- In pristine areas – when off-trail spread out to prevent the creation of new trails

Graduation – which scrambles count?

- You need three (3) scrambles to graduate:
 - One snow scramble
 - One rock scramble, and
 - the 3rd scramble can be rock or snow
- Experience Field Trip summits do not count
- Reaching the final destination is generally required; if you turn around 200 feet below your destination for any reason then that summit doesn't usually count (the leader has some discretion here) – usually the destination is the summit of a peak but there are a few exceptions, such as Camp Muir
- Scrambles must be led through The Mountaineers; private scrambles do not count
- Conditioning Hikes do not count
- Multiple summits in a single trip count as only one summit (other branches of The Mountaineers may count them as multiple summits but not the Seattle branch)
- All three scrambles must be completed in a safe and competent manner

How do I know whether my scramble was rock or snow?

Your scramble leader will decide if there was enough snow to qualify as a snow scramble or enough rock to qualify as a rock scramble. Usually, the leaders list it as rock or snow in the description. Some scrambles may not be a snow scramble or a rock scramble in which case it could still count as your 3rd scramble as it may be off trail over brush and heather.

Coursework Makeups for workshops and field trips

- You need to attend all workshops and field trips to graduate
- In the regular class, there are at least two offerings for every workshop and field trip, so please make sure one of each of them works with your schedule
- Makeup options are very limited
- If you're unable to attend any dates for a workshop or field trip then let us know as soon as possible by emailing
 - scrambling.seattle@gmail.com (regular class)
 - the leader of your course (Compressed and Pod classes)

Logging trips on peakbagger.com

- There are many ways to keep track of the scrambles you've done, but one of the neatest methods is to create an account and record your trips on: www.peakbagger.com
- The website includes many summit lists (like the 100 peaks in MRNP, the Snoqualmie 20, etc.) and as you log your summits it will display your progress within those lists
- This is also handy as a type of climbing résumé, allowing you to send a link to your Peakbagger page to trip leaders so they can see if you're a good match for their trips – some people even put a link to their Peakbagger page on their Mountaineers profile

POPULAR SCRAMBLES

- This is a small sample of the popular scrambles which may be a good starting point for your adventures
- Each year there are 250–300 scrambles led through The Mountaineers
- Other Mountaineers branches offer scrambles, not just Seattle – you can sign up for any of them unless the leader has specified otherwise
- Begin with a moderate scramble and slowly build up to increasing difficulty
- Many summer scrambles can be snow or rock; it depends on the conditions; see the "FAQ" section of this handbook on categories of scrambles
- Scrambles on the website are rated with S & T ratings for strenuous and technical difficulty; see the "FAQ" section of this handbook on S & T rating
- Read about every Mountaineers scramble destination in more detail (mileage, difficulty, etc.) at: mountaineers.org > Explore > Find Routes & Places > filter on "Scrambling"

Moderate:

Mt Ararat	Snow or Rock
Bean Peak	Rock
Camp Muir & Anvil Rock	Snow
Copper Mtn & Iron Mtn (Mt Rainier)	Rock
Cowboy Mtn	Snow
Earl Peak	Snow or Rock
Mt Ellinor (route 1)	Snow
Esmeralda Peak (west peak)	Rock
Hawkins Mtn	Snow or Rock
Humpback Mtn	Snow or Rock
Iron Peak & Teanaway Peak	Snow or Rock
Lichtenberg Mtn	Snow or Rock
Mt Pilchuck (East Ridge)	Snow or Rock
Putrid Pete's Peak	Rock
Snoqualmie Mtn	Snow or Rock
Vesper Peak	Snow or Rock

Difficult:

Barrier Peak & Tamanos Mtn	Rock
Cashmere Mtn	Snow or Rock
Grindstone Mtn	Snow or Rock
Gothic Peak	Snow or Rock
Hibox Mtn	Rock
Kaleetan Peak (South Ridge)	Rock
Mt Ruth (Mt Rainier)	Snow
Silver Peak & Tinkham Peak & Abiel Peak	Rock
Wedge Mtn	Rock

Challenging:

Mt Baring (Northwest Ridge)	Snow or Rock
Del Campo	Rock
Governors Ridge & Barrier Peak	Rock
Merchant Peak	Rock
Mt Stuart	Snow or Rock
Volcanic Neck	Rock

WHAT'S NEXT?

When you've graduated from the Alpine Scrambling Course there are many paths you can follow based on your interests

Go on trips in the Summer

- **Scrambles (April–October)** – continue enjoying these!
- **Hikes** – everyone can sign up for these

Go on trips in the Winter

- **Winter scrambles (November–March)** – these are very different from Summer scrambles; there may also be a Winter Scrambling Seminar hosted in November/December to help get you started: see the "FAQ" section of this handbook on the Winter Scrambles
- **Snowshoeing trips** – Scrambling Course graduates are qualified to sign up for any snowshoeing trips – these range from Basic trips ending at a frozen lake to Backcountry trips with snowy peak destinations requiring ice axes (*ice axe arrest is taught in the Backcountry Snowshoe Course*)

Take additional courses within The Mountaineers to advance your skills

- **Ropes & Anchors** – modules offered throughout the year (ropes & anchors, emergency overnights, etc.); taking these will help prepare you to become a scramble leader
- **Basic Alpine Climbing Course** – an involved course learning how to belay, climb glaciers, second/follow on rock
This course can also be taken as three separate smaller courses:
 - **Scrambling Course** – congratulations, you're already done with this component
 - **Glacier Travel Course** – see below
 - **Introduction to Alpine Rock Course** – see below
- **Glacier Travel Course** – this is a component of the Basic Alpine Climbing Course; you will learn how to safely climb glaciers while roped up and have the opportunity to climb Mt Rainier and Mt Baker, amongst others
- **Introduction to Alpine Rock Course** – this is a component of the Basic Alpine Climbing Course; you will learn how to be a second/follow on rock climbs
- **Winter Camping Course** – this course will teach you how to build a snow cave and spend the night in it
- **Avalanche & AIARE courses** – the AIARE Level 1 course is a 3-day introduction to avalanche hazard management

Instruct/Volunteer

- The Mountaineers always pairs up new instructors with experienced instructors
- To sign up just find the course you want to help with and sign up as an instructor
- Scramble Course instructor – next year you can instruct at any of the field trips; this helps cement the skills you learned as a student
- Scrambling Committee – join the committee to help shape the direction of future Scrambling Courses
- Snowshoe Course instructor – instruct at the field trips; it is also a great way to practice ice axe arrest again
- Wilderness Navigation Course instructor – help at the workshop or the field trip; doing both renews your Basic Navigation Course badge for an extra three years
- Wilderness First Aid patient – be one of the accident victims for the scenario part of the Wilderness First Aid Course
- Leadership – The Mountaineers offers a great Outdoor Leadership Workshop; it is open to all and strongly recommended for anyone possibly considering becoming a trip leader within The Mountaineers

APPENDIX

There are aspects of snow travel that we teach somewhat differently from what you will read in *Freedom*. This appendix covers those differences.

Some of the techniques we describe here will be difficult to understand from their description, but will become clearer when your instructors demonstrate them.

How to hold the ice axe

We do not teach the cane position described on pages 354-355 and illustrated in Figure 16-10a. For this class, you should always hold the ice axe in the self-arrest position described on page 355 and illustrated in Figure 16-10b. We'll discuss our reasoning later in this appendix. Unfortunately, many of the illustrations in Chapter 16 show the ice axe being held in the cane position.

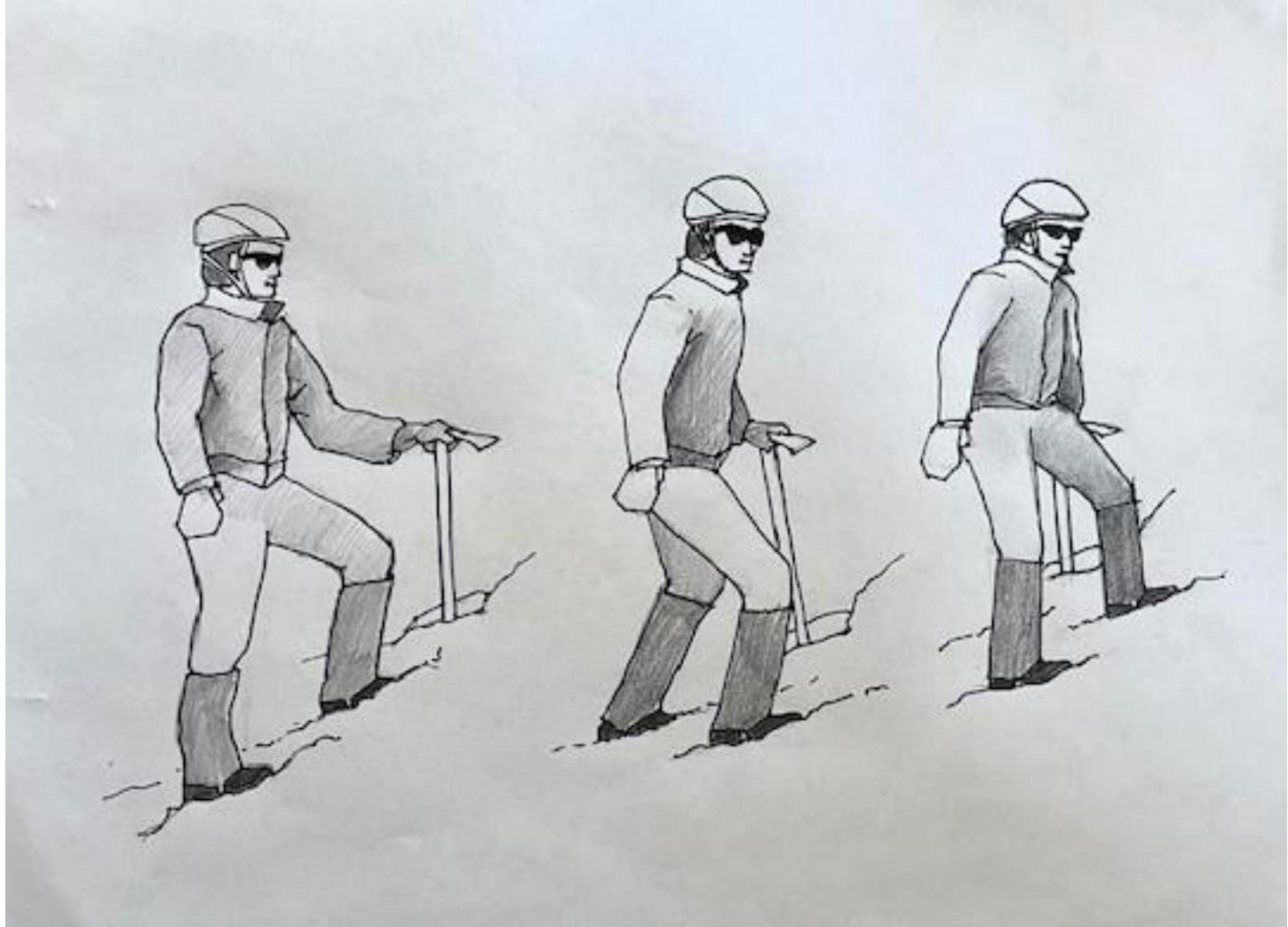
Also, we do not teach the cross-body position described on page 355 and illustrated in Figure 16-11.

Preventive self-belay

There is a paragraph about ice axe self-belay on page 367 along with Figure 16-29. It describes driving the spike of the axe into the snow when you start to slip; however, this initial part of the self-belay can be done repeatedly as a preventive measure. For instance, when ascending a slope as described on page 356 in the section called “Step-Kick”, you can plant the ice-axe ahead of you vertically into the snow; this is usually done once every two steps.

Traversing a snow slope

When traversing a snow slope, whether travelling straight across the slope or diagonally ascending or diagonally descending, be sure that you are holding the ice axe with the uphill hand. In this context, there is an important concept that we teach called the in-balance position. The in-balance position is shown in the first picture below. Note that the snow is sloping upward to the left of the climber, so the ice axe is in the climber's left hand and the left foot is forward. When the snow slopes upward to your right, you should hold the ice axe in your right hand and the in-balance position is with the right foot forward.

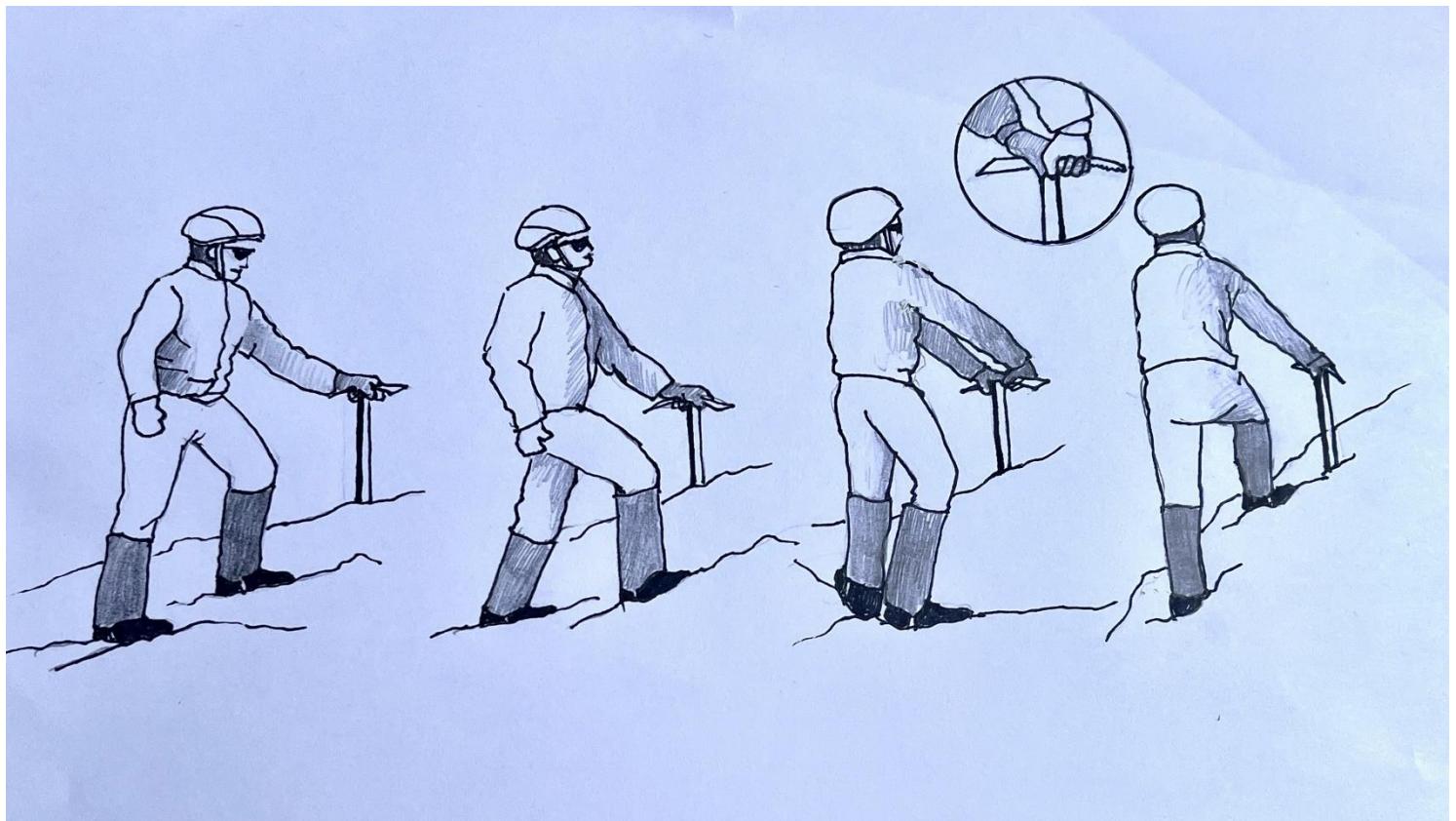


Traversing a slope (whether straight across or diagonally) involves repeating a three-part process of moving from one in-balance position to the next. Starting from the in-balance position as in the first picture above, take two steps as in the next two pictures to get back into balance. From the position in the third picture you can move the ice axe to get back to the position in the first picture. As you take each step be sure as one foot passes the other that there is some distance between them; this is especially critical when you are wearing crampons. It's important to note that the position in the middle picture is out of balance; do not move the ice axe when you are in this position.

To summarize, when the slope is up to the left, the in-balance position is with the ice axe in the left hand and the left foot forward; the sequence is: right step, left step, move the axe. When the slope is up to the right, the in-balance position is with the ice axe in the right hand and the right foot forward; the sequence is: left step, right step, move the axe.

Ascending switchback turn

When you make a switchback turn on a snow slope, you need to transfer control of the ice axe from one hand to the other. In order to do so safely while maintaining the self-arrest grip, follow these steps as illustrated here.



Let's assume, as in the illustration above, that you are diagonally ascending with the slope up to your left, and you wish to make a left turn, after which you will be diagonally ascending with the slope up to your right. Before the turn, start in balance (ice axe in the left hand, left foot forward, ice axe planted securely ahead of your left foot). This puts you in the position of the first picture above; now, take a step with your right foot as in the second picture. Next, turn your left foot so that it points up to the left. You now should be facing up hill with the ice axe planted in front of you and with your feet splayed outward and equally distant from the shaft of the axe; this is the position in the third picture. At this point, be sure that your feet are secure, and then rotate the axe clockwise one quarter turn so that the pick is pointing away from you. Take hold of the pick with your right hand, then carefully shift it to the self-arrest grip as your left hand relinquishes control. Rotate the axe clockwise another quarter turn; the pick will now point to the right (see the insert above). Take a step in the new direction with your right foot and you will be in balance again.

Let's briefly go through this process for an uphill switchback turn to the right; imagine the illustration but with the mirror image of each individual picture. Start in balance (ice axe in right hand, right foot forward, ice axe ahead of the right foot). Take a step with the left foot, turn the

right foot toward the new direction. Turn the axe counter-clockwise and transfer control to the left hand. Take a step in the new direction with the left foot.

Descending switchback turn

We'll describe two methods of doing a descending switchback. The first one is simple but is not protected by a self-belay, so it should only be used when it is easy to kick solid steps in the snow. From an in-balance position with the ice axe securely planted in the snow ahead of your leading foot, turn your feet (planting your heels firmly into the snow) so that you are facing downhill. Once your feet are secure, you can pull the ice axe out, transfer it to the other hand, and then plant it on the other side. Now turn your feet in the new direction to get in balance again.

The second method is more complicated but much more secure. It's also not very intuitive. In order to maintain a self-belay with the ice axe above you, for a desired turn of 90 degrees, your body needs to rotate 270 degrees in the opposite direction. We'll describe descending with the slope up to the right, then making a left turn after which the slope will be up to the left.

Start from the in-balance position (ice axe in the right hand, right foot forward, ice axe planted securely ahead of the right foot). Rotate your right foot clockwise about 90 degrees (or as far as comfortable), then take a step with your left foot so that it is at the same level as your right foot and points uphill to the left. Now, turn your right foot so that it points uphill to the right. Turn the axe counter-clockwise and transfer control to your left hand. So far, this is much like the uphill switchback except for the initial turn of the right foot.

Now, while protecting yourself with your self-belay, you need to get your feet into the in-balance position facing the new direction of travel. There are various ways to do this, but an efficient method takes three steps. First, turn your left foot so that it points up hill to the right. Second, move your right foot so that your heels are next to each other with the right foot pointing diagonally down in the new direction. Third, take a step in the new direction with your left foot to get in balance again.

Backing down

For descending a steep snow slope, the most secure method is often to back down. In fact, on the slopes encountered on scramble trips, backing down is almost always the most secure.

The key is to plant the ice axe securely directly in front of you with one hand holding the axe in the self-arrest grip and the other hand pushing on the adze; that is, a two-handed self-belay. With the leverage of both hands pushing down on the axe, you should be able to bury enough of the shaft that the axe will hold you if you slip. Take a step or two down, kicking secure platforms

for your feet. When you feel secure, pull the axe out of the snow and plant it again as low as you comfortably can. Be careful not to step down so far that it is difficult to pull the axe up out of the snow. See the illustration below from the previous version of *Freedom*.

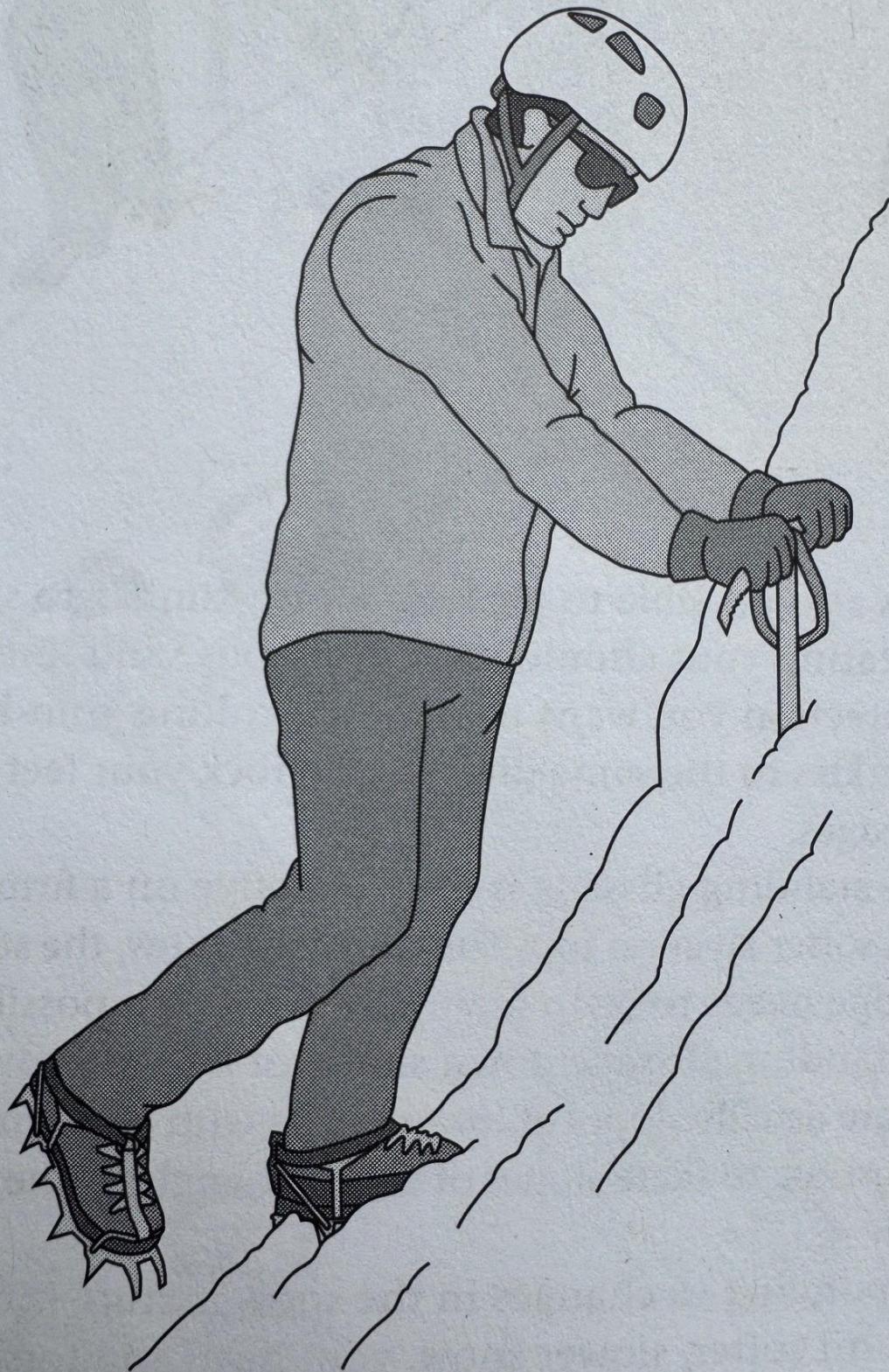


Fig. 16-22. Facing in (backing down): place axe low on the slope and don't lean in toward the slope.

Ice axe grips

The sidebar on page 363 in *Freedom* discusses pros and cons of the two ice axe grips. The situations where it would be easy to stop a slide by pushing the pick into the snow are rarely, if ever, encountered on scrambles. This is one reason that we teach only the self-arrest grip. Another advantage to learning just the self-arrest grip is that you don't need to learn how to flip from one grip to the other, which is not as easy as *Freedom* implies. One of the most important ways to make self-arrest effective is to do it as automatically and quickly as possible, before you gain significant momentum. Not only do you save time by not doing the flip to the self-arrest grip, but you also don't need to decide whether you need to flip or not. Making the wrong decision during the confusion of suddenly finding yourself sliding down the slope could result in stabbing yourself with the pick; this has been known to happen with fatal consequences. As you go on to more technical climbing, you may or may not find it useful to sometimes use the cane grip.