



# 2018 Basic Alpine Climbing Course

## Student Handbook

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Fred Beckey,  
photograph in *High  
Adventure*, by Ira Spring,  
1951

In loving memory

**Fred Beckey**

[January 14, 1923 – October 30, 2017]

## 2018 BASIC ALPINE CLIMBING COURSE STUDENT HANDBOOK

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## INTRODUCTION

Welcome to the 2018 Basic Alpine Climbing Course. We look forward to working with you and helping you successfully complete this course. The methods and techniques you learn, skills you develop, and experience you gain from completing this course will give you a sound basis for safe and enjoyable mountaineering.

The Basic Alpine Climbing course is a program of classroom and field instruction designed to equip you with the skills and experience required to safely climb most rock, snow, and glaciated mountains in the Pacific Northwest. Course graduates are eligible to participate in basic club climbs, alpine scrambles, winter snowshoe trips, the intermediate climbing course, the crag climbing course, specialty climbing seminars, and many other activities offered by The Mountaineers.

You will succeed in this course and have more fun in the process if you keep in mind the following:

- The Mountaineers is a club, **not a guide service**. You will always practice and climb under the guidance of our experienced volunteer instructors, but as you progress you should be increasingly self-sufficient. You are responsible for your safety and progress in the course and on climbs.
- **Good physical fitness and conditioning are necessary** for safely and enjoyment. See p. 11.
- **Don't be afraid to ask questions** or ask for help. Your instructors want you to succeed. Have a positive attitude; seek help and information when needed.
- **Enjoy the alpine environment without loving it to death**. The Mountaineers are committed to conserving the wild places where we play. Be environmentally responsible.
- **Get involved**. Mountaineers activities are run entirely by our members – and that now includes **you**. Seek out group conditioners; participate in Monday night skills sessions, volunteer to help with other activities. Making face to face connections is a great way to meet people and to find out about climbs.

## COURSE OVERVIEW

The curriculum includes five class meetings, seven required field trips, membership in a small instructional group (SIG) which will have its own meetings and outings, and basic experience climbs.

### ***Class Meetings***

Class meetings will feature speakers and presentations on a variety of climbing-related topics, as well as gear demonstrations. Unless otherwise noted, these will be held from 7:00 – 9:00 PM at the Mountaineers Program Center.

- December 3, 2017 : **Lecture #0 - Meet & Greet**
- January 2: **The LAST DAY to withdraw from the course with a refund.**
- January 3, 2017: **Lecture #1 - Course Introduction, Top-rope Belay, Rope Ascending** . Reading Assignment: *Mountaineering, The Freedom of the Hills*, 8th Edition (Freedom 8), chapters 1-4, 6-9
- January 31: **Lecture #2 - Rappel, Belays, Climbing & Anchors**. Reading Assignment: *Freedom 8*, chapters 9 (review from 1st lecture), 10, 11, 22.
- March 7: **Lecture #3 - Alpine Rock**. Reading Assignment: *Freedom 8*, chapters 12-14
- April 4: **Lecture #4 - Snow Travel, Avalanche**. Reading Assignment: *Freedom 8*, Chapter 16 and Chapter 26, review Chapter 21
- May 2: **Lecture #5 - Glacier Travel**. Reading Assignment: *Freedom 8*, Chapter 16, 17, 21, 27, review Chapter 21

## Field Trips

You will participate in seven field trips to learn and demonstrate fundamental climbing skills and techniques. You must successfully complete each field trip before progressing to the next. Each student will have a climbing skills book to record skills assessed during each field trip. Books will be distributed at the beginning of each field trip and must be returned at the end of the day.

**PLEASE NOTE: You must turn in your skills book to receive credit for the field trip.**

	Skills Covered	Schedule (you attend one)
Field Trip 0	Optional Student Skills Practice	6 - 9:00pm on 12/11, 12/18, 1/8, 1/15, 1/22, 1/29
Field Trip 1	Top-rope Belay & Lowering, Rope Ascending	6:30pm on
Field Trip 2	Rappel, Belays, Belay Escape, Anchors	7:30 am on 2/10, 2/11, 2/17
Field Trip 3	Rock Skills Evaluation	7:30 am on 3/24, 3/25, 4/1
Field Trip SIG Rock	SIG Rock (Rock Climbing, Belay, Rappel, Anchors)	Each SIG will have its own FT. Full day. May be held either before or after FT3
Field Trip 4	Snow Travel - Ice Axe and Crampons	8:00 am – 4/28, 4/29, 5/5
Field Trip SIG Snow	SIG Snow Overnight (Snow Anchors & Belays, Crevasse Rescue, Snow Camping, Roped Travel)	Each SIG will schedule its own Snow FT. Weekend – two days. May be held either before or after FT4.
Field Trip 5	Crevasse Rescue Evaluation	6:00pm on 5/9, 5/10, 5/16, 5/17

Registration for each field trip will open on the Mountaineers.org website approximately one month before the first session. If you have schedule constraints which limit your choices, keep track of when registration opens and register early while all the dates still have openings. If for some reason you cannot make any of the sessions, consult with your SIG leader as soon as you find out.

Field trip information will be posted online for registration at least one month prior to the first session at [mountaineers.org](http://mountaineers.org). Click on Get Outside & Explore and search under Climbing. Please be sure to review the field trip information **early**. You may need to purchase gear and will have assigned readings and prep work. If you come ill-prepared you may not be allowed to participate in the field trip.

### Field Trip Code of Conduct

- Register for only one session at a time. You may register on the wait list for another session you prefer, but please cancel your original registration immediately if you get in.
- If you will be late or must cancel due to illness or other unforeseen circumstances, email, text, or call the Field Trip Leader. Contact info is in the website activity listing.
- Arrive 10 – 15 minutes early to allow time for check-in, skills book p/u, and assignment.
- Treat the Instructors and Field Trip Leaders with respect. If you feel that you are not being treated well or taught appropriately, please see the Area Leader or Field Trip Leader.
- If you observe something that you believe is unsafe, immediately bring it to the attention of the nearest Instructor, Area Leader or the Field Trip Leader.

- Cell phone calls should not interrupt you or your companions during a Field Trip. Preferably turn the ringer off and refrain from unnecessary usage.
- Bring food and water; these will be long days. Often there will be no official meal breaks, and you will have to eat and drink between activities.
- Be friendly and helpful to your fellow students; this is not a competition.
- Learn and have fun!

### ***Standard Techniques***

In mountaineering, as in life, there is usually more than one good way. However, for safety and to keep things clear and simple for students and instructors, The Mountaineers have adopted a set of standard techniques for fundamental Basic Climbing skills. They are illustrated on the [Mountaineers](#) class website (see p. 5), described in more detail in *Freedom 8*, and taught by SIGs and at the field trips. For some skills, *Freedom 8* may describe a variety of methods that are accepted by respected climbing authorities. SIG leaders and field trip instructors will show you The Mountaineers standard techniques, and we would like you to learn and use them during course activities. If you prefer to use an alternate technique at a field trip or a climb, please discuss it first with your field trip area leader or climb leader; this will avoid confusion and unnecessary safety concerns.

### ***Small Instructional Group (SIG)***

Each student in our course is assigned to a Small Instructional Group (SIG) made up of about ten students and a leader. This group will conduct two of the required field trips and also augment the class with outings of its own, which may include conditioning hikes, extra practice sessions, and possibly climbs. Each SIG will determine its own schedule. Your SIG leader will be your primary point of contact for the course.

### ***Skills Practice Nights***

Training/practice sessions are offered at the Program Center most Monday evenings, usually starting about 6pm. It is 'open gym' and there is no need to sign up. These work great as preparation for upcoming field trips. Some SIGs come as a group, but that is not necessary; individual students are welcome. 2017 dates: every Monday starting Dec 7-May 23, except Dec 28.

### ***Friday Open Climb Night***

Friday night is 'open gym' at the Program Center indoor climbing wall. This is not part of the Basic Course but students are welcome. There is no instruction; it is a climbing gym activity. Belay with your own device. Generally this is available every Friday evening from 6:00 - 9:00 until mid March. Check the Activity listings on [mountaineers.org](http://mountaineers.org) at "Get Outside & Explore" under "Climbing" look for "Open Climb Night" to verify for a specific Friday.

### ***Basic Experience Climbs***

After attending all class meetings and successfully completing all field trips and evaluations, you may sign up for actual basic experience climbs and begin applying your skills. There are three categories of basic climbs: Rock, Glacier, and Alpine. Basic Alpine climbs typically include sections of both rock and snow climbing but without sustained climbing in either. To graduate, you must reach three summits--one of which must be rock, and one which must be glacier. The third may be any type. No more than two of your three graduation summits may be with your SIG.

[Appendix A](#) is a guide to the approved Basic Experience Climbs.

## References

### Textbook

The text for the basic course is *Mountaineering: The Freedom of the Hills*, 8th Edition (Freedom 8), published by The Mountaineers, published in several languages, sold all over the world and regarded as the definitive text on alpine climbing. The contributing authors are club members, and many will be your instructors and climb leaders. There are reading assignments in *Freedom 8* for each lecture and field trip.

### Web Sites

There are two web sites you will use extensively in this course:

1. The **Mountaineers** web site [www.mountaineers.org](http://www.mountaineers.org) is where you will find and register for class field trips, climbs, and other some activities.
2. The **Mountaineers website** is the central portal for all class information. It has dates and links to register for all the class meetings and field trips and preparation instructions for the activities. It includes online versions of all important class information and documents, including a pdf of this Handbook, as well as excellent articles and videos on equipment and our class Standard Techniques. If you have any question about the class, please look here first. Please bookmark this: <https://mountaineers.org/>.

There are two other online resources that are not required but are good ways to connect to other basic students, climb leaders, and other Mountaineers. We think you will want to use these.

3. We have established a **Facebook** group called “The Mountaineers Seattle Basic Alpine Climbing”, an optional forum for informally connecting with former and current students, instructors, SIG leaders, and climb leaders. This is a place for sharing ideas, asking questions, coordinating conditioning hikes, and sharing photos without having to “friend” everyone on your climb. It’s a great way to stay connected to your Basic Climbing community. It is a closed group, so you can be added by another group member, or ask to join. It is optional, and you are free to join or leave as you wish. The Facebook group is NOT a replacement for the club website. Signing up for climbs, field trips and other official parts of the Basic course can only be done on [www.mountaineers.org](http://www.mountaineers.org). Please use the Facebook group only for communicating about the Basic Climbing class, and in your posts always be respectful of your Mountaineers colleagues. Any problems or concerns about the course should be addressed to your SIG leader or to the course managers at [basic.climbing@gmail.com](mailto:basic.climbing@gmail.com)., not posted on Facebook.
4. **Email Notification of Climb Listings** – Our leaders will offer about 250 basic experience climbs this year. Some will be posted early; others will be added as the season progresses. We have 160 students in the class, all anxious to climb, so there is competition for places. You could haunt the climbs listings at [mountaineers.org](http://mountaineers.org) but there is an easier way. You can (and should) join the Google group that emails you notification of new basic climbs listings as they are posted - no more than one email per day. The messages will give the name and date of the climb and a direct link to its information and signup page at [mountaineers.org](http://mountaineers.org). Join here: <http://mountaineers-events.appspot.com>

(Many thanks to Jonathan Mastin and Dennis Killerich for developing this service.)

**Two Additional Websites** with helpful information:

[www.animatedknots.com](http://www.animatedknots.com) Learn knots the fun and easy way with animated demonstrations.

[www.bodyresults.com](http://www.bodyresults.com) A free monthly newsletter and more than 300 pages of climbing training tips and basic climb trip reports compiled by club members Courtenay and Doug Schurman.

## THREE ADDITIONAL REQUIREMENTS FOR GRADUATION FROM BASIC

### ***Alpine First Aid***

A current backcountry First Aid certification is required for graduation. The easiest way and what most students do is to take Alpine First Aid (AFA) through the Mountaineers. The fee is \$175. The course consists of a weekend Wilderness First Aid course and an evening practical Scenarios session. See the [mountaineers.org](http://mountaineers.org) activity listings “Get Outside & Explore” menu, then “First Aid” for Alpine First Aid course offerings. Sessions are offered throughout the year but space is limited. Students who wait until mid-season often find they cannot get into an AFA session before the October graduation. The lesson is clear: *Get your first aid certification ASAP.* Besides, you’ll enjoy it.

Other more advanced certifications may also satisfy the first aid requirement. Wilderness First Responder (WFR), Wilderness EMT (WEMT) and Remote Medicine for Advanced Practitioners (RMAP) are accepted. If you have questions, email [milesmcdonough@gmail.com](mailto:milesmcdonough@gmail.com) Mary Panza ([makinanoise@hotmail.com](mailto:makinanoise@hotmail.com)). You will need to supply a copy of a valid and current certification; additionally, you may need to complete an Alpine First Aid evening Scenario session (at no cost) to receive graduation credit. But do not wait until the last minute to ask, in case your certification does not satisfy our requirements!

Front-country medical professionals are encouraged to take the Alpine First Aid course to familiarize themselves with the basics of wilderness medicine and the standard curriculum taken by most climbing students. Or they may prefer to take a more advanced course, such as Remote Medicine for Advanced Practitioners (RMAP), to satisfy the first aid requirement. Front-country medical certifications do not provide sufficient training to handle remote medical emergencies. Basic CPR and Red Cross First Aid do not meet the graduation requirement.

### ***Navigation***

Navigation using map and compass is a critical mountaineering skill. You must have a navigation card or the equivalent before graduation. You get the card by taking The Mountaineers navigation course listed online at <http://www.mountaineers.org/seattle/navigation/>. Held in November, February, and March, the course includes one evening workshop and one full-day field trip. Navigation cards are valid for three years, so if you already have one, perhaps earned while taking the alpine scramble or snowshoe courses, and it is current, you do not need to repeat the navigation course (but we encourage you to volunteer and help instruct the Navigation course).

Please note that you will be required to have a specific type of compass for the navigation course, as described at [www.mountaineers.org/seattle/navigation/](http://www.mountaineers.org/seattle/navigation/) under “Compass.” Do NOT buy a compass without reading the guidelines! Further reading: *Freedom 8*, chapter 5.



## Stewardship

The Mountaineers is the Northwest's largest outdoor activity club. We have a great impact on the wilderness environment we love and use, and we want it to be a positive one. As Mountaineers, it is important that we become stewards of the wilderness. This means using "Leave No Trace" travel and camping techniques and actively contributing our labor to environmental projects.

Toward this end, basic climbing students complete a day of volunteer stewardship as a graduation requirement. The definition is rather broad, so you may choose an activity that appeals to your interests and fits your schedule. Usually it is one day of volunteer physical labor, and preferably it will relate to places used by The Mountaineers. Typical activities are trail work, habitat restoration, tree planting, or invasive species removal. Other types of activities may be accepted. If you have a project in mind and your SIG leader is unsure if it qualifies, please contact [basic.climbing@gmail.com](mailto:basic.climbing@gmail.com)

To find stewardship activities, check The Mountaineers web site at: [www.mountaineers.org/seattle/climbing/News\\_Events/Stewardship.html](http://www.mountaineers.org/seattle/climbing/News_Events/Stewardship.html).

Or contact the following organizations directly:

- Washington Trails Association: [www.wta.org](http://www.wta.org)
- EarthCorps: [www.earthcorps.org](http://www.earthcorps.org)
- Mountains to Sound Greenway Trust: [www.mtsgreenway.org](http://www.mtsgreenway.org)
- Volunteers for Outdoor Washington: [www.trailvolunteers.org](http://www.trailvolunteers.org)
- Washington Wilderness Coalition: [www.wawild.org](http://www.wawild.org)

Further reading on Leave No Trace: *Freedom 8*, chapter 7.

## GRADUATION AND EXTENSIONS

### Requirements

To graduate from the basic climbing course, you must:

- Attend or make up all required class meetings.
- Attend all required Field Trips and pass the rock, snow, and crevasse rescue evaluation sessions.
- Complete in a safe and competent manner three basic experience climbs, including one rock and one glacier climb.
- Hold a current Mountaineers Alpine First Aid certification or equivalent at the time you apply for graduation.
- Hold a current Mountaineers navigation certification at the time you apply for graduation.
- Perform a qualifying stewardship service activity.
- Complete and submit a graduation application. There is a link to the online graduation application on the [basic-alpine](#) website.

Submit your graduation application as soon as you have completed all of the above requirements. The graduation ceremony, our annual Climbers Reunion, will be Friday, **November 9, 2018**. File your application by October 12 to ensure that you are recognized at the ceremony – it's a fun event and you will want to be up front celebrating with your classmates.



### ***Pending Graduation***

If you have completed all graduation requirements except Alpine First Aid, navigation and/or stewardship, you do NOT need to apply for extension (see below). Go ahead and apply for graduation, but note which of the three requirements you lack. You will be graduated conditioned upon completion of those missing requirements, and you will be recognized at the Climbers Reunion. However, you may not participate in club activities requiring basic graduate status until all requirements are satisfied. Pending graduates have seven months to complete everything.

### ***Extensions: Second Year Status***

Basic Alpine Climbing is intended to be a one year course, but can be completed in two years if circumstances require. Extension requests should be emailed to Glenn Eades ([geades@seanet.com](mailto:geades@seanet.com)). Your application should state how far you have progressed in the Basic Course and why you could not finish this year. Specifically:

- How many of the field trips did you successfully complete?
- If you summited any basic climbs, give the peak name, date, and leader's name for each.
- Have you completed first aid, navigation and stewardship?
- What circumstances kept you from completing the course?

You may apply for an extension at any time when you realize you will be unable to finish the course, but the deadline is November 14, 2017. We do not allow extensions beyond the second year. If you do get extended, you must complete ALPINE FIRST AID within seven months of the normal graduation date for your class.

## **REGISTERING FOR FIELD TRIPS, CLIMBS AND OTHER ACTIVITIES**

Climbs, field trips, the Alpine First Aid course (AFA), the Navigation course and other events requiring registration will be set up as Activities on [mountaineers.org](http://mountaineers.org) (go to Get Outside and Explore/ Climbing). Open and closing dates for registration are posted, and registration is on a first come, first served basis. If your schedule dictates that you must have a particular date for a field trip, register as soon as the signup activity opens. Please take a few minutes to learn the search, registration and cancellation procedures described in the *Help* section on the website.

## **SEMINARS**

The Climbing Committee also offers seminars that are not part of the Basic Course but may be valuable adjuncts to your alpine education. Watch for them on the Learn -> Find Seminars portion of [mountaineers.org](http://mountaineers.org), in the semi-monthly Climbing Highlights e-newsletter which all basic students receive, and in the bi-monthly Mountaineer magazine. There may be modest fees for the skills seminars. The evening lectures are generally free of charge.

## **PHYSICAL CONDITIONING**

You need not be a competitive athlete or marathon runner to succeed in this course, but you should be as fit as possible in order to increase your chance of success and maximize your enjoyment of the program. A climber in poor condition may slow the party enough to prevent ever reaching the summit,

or even jeopardize party safety. Inadequate conditioning also can contribute to a loss of alertness and an inability to respond properly to the demands of the environment.

You will learn far more during the climbs and field trips if you can focus your attention on mastering technical skills taught in the course, rather than worrying about catching your breath. Be prepared to carry a 30 pound pack and cover 10 miles while gaining 4,000 feet of elevation on day trips or a 40 pound pack and cover six miles per day, while gaining 3,000 feet on overnight trips.

**You are required to pass a conditioning evaluation** by the last scheduled field trip in May to be eligible to go out on real climbs. This evaluation typically involves the equivalent of hiking 3,200' over 4 miles in under 2 hours, carrying 20% of your body weight or 25lbs (whichever is greater).

Bottom line—start your conditioning program right away if you haven't already done so. Here are some suggestions:

- Begin a consistent program of aerobic conditioning, such as jogging, cycling, cross-country skiing, stair climbing, elliptical training, etc. A typical regimen to prepare for climbing season would be to start with three 30-minute sessions/week at low to moderate intensity, gradually working up to 60 minutes each at moderate to high intensity, while including a 2+ hour endurance workout at low intensity on the weekend.
- A program of full-body resistance training to increase strength and balance in the core, legs and upper body is highly recommended. This is particularly important if you have had any previous problems with your back, shoulders, knees or hips. Many climbers use yoga and Pilates in addition to or in place of traditional gym weight training. If you are not experienced at resistance training, please consult a qualified trainer or instructor to develop a safe program appropriate for you.
- The best conditioning for alpine climbing is hiking uphill with a loaded backpack. At least twice a month (working up to every week if possible), do hikes with significant elevation gain. Gradually increase the amount of weight you carry in your pack, working up to at least your expected overnight pack weight. Helpful hint: load your pack with jugs of water - one gallon weighs 8 pounds. Great training hikes along I-90 include Tiger Mountain, Rattlesnake Ledges, Mt. Si, Mailbox Peak, Granite Mountain, Pratt Mountain, and McClellan Butte.
- Indoor climbing walls like those at our Program Center, Vertical World, and Stone Gardens provide another type of workout. While indoor climbing is different from alpine climbing, the footwork and balance techniques you learn will help you with the rock climbing part of the course. Once you pass the belay portion of the course, you can climb on the indoor wall of the Program Center. Call in advance, 206-521-6000, to make sure the room isn't reserved and for other requirements for using the facility.

*Climbing Conditioning Benchmark:* At a minimum, be able to hike with a full day pack (ca. 25 pounds) up the Mt. Si trail (4 miles, 3400' gain) in under 2:00. Being able to do it twice is good preparation for the more strenuous basic climbs.

Further reading: *Freedom 8*, chapter 4.

## CLOTHING AND EQUIPMENT

Not every item listed in this handout is needed at the beginning of the course. You may acquire items as you go, in fact we suggest you do. As the course progresses you will learn, discuss, and see various clothing and equipment choices first hand, hence make better purchases. Make a study of climbing clothing and equipment. The best choice for your buddy may not be right for you. Sometimes the most expensive piece of gear really is what you need, but other times the cheaper alternative may be perfectly adequate. And always consider weight. Remember the climbers' adage, "Ounces add to pounds and pounds add to pain".

The Required Equipment Matrix on pp 17 – 18 of this handbook lists the clothing and equipment you are expected to bring for different types of climbs. The Field Trip information on the [basic-alpine](#) website includes a detailed list of the equipment required at each trip. Read that information carefully before each field trip. We may have to turn you away if you lack proper gear and clothing.

You may already own some of the needed clothing and hiking-related gear. Many items (e.g., helmet, crampons, pack) can be rented. Some equipment, such as tents and stoves, can be shared with another climber. As a basic student, you are not expected to have a rope or climbing rack. The club provides ropes for field trips, while the climb leader and rope leaders (mostly Intermediate students) provide the ropes and racks for basic climbs.

The required equipment varies with the type and length of the trip and anticipated conditions. Our equipment recommendations are generally conservative, based on the need to be fully prepared for severe weather, emergencies, accidents, or unplanned overnight bivouacs. The basis of the list is the ten essential systems, which is covered in detail in [Freedom 8](#), pages 34–38.

Each person should always carry the full ten essentials when traveling in the backcountry, whether on an extended climbing trip or a short afternoon hike. If you become separated from the party, the equipment in someone else's pack will be of little help. Keep your essentials as light as possible. Instructors and other experienced climbers will provide tips throughout the course on how to do this.

### ***Clothing and Equipment Costs***

Clothing and equipment costs for this course will depend upon what you currently own. If you pursue other outdoor activities such as backpacking or cross-country skiing, you may already have much of the required clothing, camping gear, and footwear. In that case, most of what you buy will be the technical climbing equipment. Even then, you should budget a minimum of \$500 for gear. If you have to purchase most of the required clothing, boots as well as climbing gear, be prepared to spend as much as \$2000. You can keep costs down by using items you already own, borrowing, renting, and shrewd shopping. **Please see the Member Benefits on the next page for all of our Mountaineers discounts.** This information is also on [mountaineers.org](#), [Membership Benefits](#).

## Equipment Sources

Seattle is blessed with many fine mountain shops, and of course a lot of gear can be ordered online. Also check <http://www.mountaineers.org/membership/benefits.cfm> on the club's website for a long list of companies that offer special discounts for Mountaineers members.

### Major local suppliers of outdoor and climbing equipment:

Eddie Bauer/ First Ascent	Multiple locations across the area, check website for details		<a href="http://www.eddiebauer.com">www.eddiebauer.com</a>
Feathered Friends	119 Yale Ave N, Seattle	206-292-2210	<a href="http://www.featheredfriends.com">www.featheredfriends.com</a>
Hilleberg the Tentmaker		425-883-0101	<a href="http://www.hilleberg.com">www.hilleberg.com</a>
Mountain Hardwear	250 Pine Street, Seattle	206-441-2639	<a href="http://www.mountainhardwear.com">www.mountainhardwear.com</a>
The North Face	1023 1st Ave, Seattle 2682 NE Village Lane, Seattle	206-622-4111 206-525-8500	<a href="http://www.thenorthface.com">www.thenorthface.com</a>
Outdoor Research	2203 1st Ave S, Seattle	206-971-1496	<a href="http://www.outdoorresearch.com">www.outdoorresearch.com</a>
Patagonia	2100 1st Ave, Seattle	206-622-9700	<a href="http://www.patagonia.com">www.patagonia.com</a>
Pro Mountain Sports	5625 University Way NE, Seattle	206-522-1627	<a href="http://www.promountainsports.com">www.promountainsports.com</a>
REI	Seattle - 222 Yale Ave N and in Redmond, Southcenter, Alderwood and Issaquah	206-223-1944	<a href="http://www.rei.com">www.rei.com</a>
Second Ascent	5209 Ballard Ave NW, Seattle	206-545-8810	<a href="http://www.secondascent.com">www.secondascent.com</a>
Wilderness	310 Winslow Way E, Bainbridge Island	206-780-8527	<a href="http://www.wildernessoutdoorstore.com">www.wildernessoutdoorstore.com</a>

<http://www.zpacks.com/>

<http://www.tarptent.com/>

## **Selecting Equipment**

The following is a brief overview of required equipment. Be sure also to read the comprehensive and illustrated “Deling’s Gear Guide” found [here](#).

### **Climbing Helmets**

Your climbing helmet must be UIAA or CE approved. Bicycle, kayak, motorcycle, snowboard or other types of helmets are not acceptable because they are designed to specifications different from those needed by climbers. A climbing helmet provides:

- Protection from rock fall impact
- Protection to side of head in a tumbling fall or pendulum.
- Retention of helmet on head in a tumbling fall
- Upward visibility not obstructed by brim
- Ventilation
- Adjustable fit to accommodate a bare head or bulky warm hat

### **Belay Device**

You will learn to belay with a friction belay device and with the munter hitch. Each takes a specific piece of equipment. The munter hitch requires an oversized locking carabineer, a “pearbiner”. As for belay devices, there are plenty to choose from. Aperture devices such as the Black Diamond ATC and Petzl Reverso are popular. Mechanical devices with moving parts, such as the Petzl Grigri, are specialized sport climbing gear and not suitable for alpine mountaineering.

### **Belay Gloves**

Specialized belay gloves are nice but costly. Any durable leather glove will serve; inexpensive work gloves are fine. Belay gloves are best carried clipped to your seat harness. If your gloves do not come with attachment loops, either punch holes in the cuffs or attach small cord loops.

### **Seat Harness**

There are many seat harness designs available in climbing shops, and nearly all are acceptable for our class. You will be using your harness for both rock and glacier, so it should be designed for all types of climbing. A proper fit is critical. The harness must expand enough to fit over several layers of bulky clothing without binding, but when you have peeled down to t-shirt and gym shorts, it must be snug enough so you cannot fall out.

Comfort is important but there is a trade-off: padded models are easier on your body when hanging from the rope, but are relatively heavy and bulky. Alpine style harnesses are made of unpadded nylon webbing, so are not as cushy, but lighter and less bulky in the pack. In alpine climbing, you will spend many more hours carrying the harness in your pack than hanging in it. Each type has its devotees; try on several. Also, be sure to familiarize yourself with the harness manufacturer’s instructions for fitting and use. For general alpine climbing, it is convenient if your harness does not have fixed leg loops that you must step through because this is difficult with crampons. The Black Diamond Bod or Alpine Bod are good examples of this type.

### **Boots**

Get general alpine mountaineering boots stiff enough to accept crampons. These are not the same as hiking boots; they are much sturdier and have a less flexible sole. Try several brands to find the one that fits you best, and spend lots of time with the fitting. Be fussy and take your time. If they don’t feel good

in the store, they won't get any better on the trail. It is said that climbing boots are so stiff they don't break in; climbers' feet break in perhaps, but not the boots.

Plastic boots and boots with completely rigid soles are great for glacier climbs, but not suitable as your only climbing footwear.

Rock shoes are not needed for the basic course. Basic rock climbs are usually done in mountain boots, though rock shoes may occasionally be permitted at the leader's discretion.

### **Crampons**

Crampons must be suitable for alpine climbing. They may be aluminum or steel and have either 10 or 12 points, with the forward pair (the front points) protruding out in front of the boots. Select crampons after buying your boots to be sure they fit well. They may be either step-in or strap-on. Step-in crampons require good welts and rigid soles. Strap-on crampons are more suitable for all kinds of boots and are a good choice for your first pair. Crampons with anti-balling plates are strongly recommended.

Aluminum front-point crampons are acceptable and most of our students prefer them. They are generally lighter and less costly than steel. However, they are not suitable for high angle ice climbing, so if you go on to our Intermediate course you may have to rent or buy another set. There are many options; the final selection is a matter of personal preference. Consider renting crampons before buying.

### **Ice Axe**

Get help from an experienced climber when purchasing an ice axe. You want a general purpose alpine axe. Specialized ice climbing tools or super-light trekking axes are not suitable for this course. A length of 65 to 70 centimeters is right for most people, perhaps 75 cm for tall climbers who expect to do lots of glacier climbs. Buy spike and pick guards for safety when the axe is lashed to the back of the pack.

### **Packs**

You will need a pack large enough to hold camping gear, food, clothing, and climbing equipment for a weekend. Generally this means something in the range of 3500–4500 cubic inches (60 – 75 liters). Eventually you will also want a smaller pack for one-day climbs, but you can make do with just one large pack by choosing a model that cinches down smaller when only partly filled.

A good climbing pack has lots of external loops for lashing gear on the outside. There are many choices; be fussy about comfort. As with boots, no one pack is comfortable for all bodies. Some shops have rent-before-you-buy programs.

### **Sling (a/k/a Runner) & Prusik Material**

When purchasing the tubular webbing and perlon (non-stretchy synthetic cord, a/k/a accessory cord) ask that it be cut to exact length with the hot knife that climbing shops use – makes a nice neat end. For the runners, get three 5' lengths, two 9' lengths (or sewn runners) and one 8' length which must be webbing. It is a good idea to get three different colors for the three different lengths. This helps you distinguish between them when grabbing for a sling.

You may get sewn runners rather than lengths of webbing – see the equipment matrix below. The trade-offs are that sewn runners are lighter and stronger but more expensive. Tied webbing runners are heavier but cheaper and also more adaptable because they can be untied and joined together to make a very long loop if needed. Many alpine climbers like to carry at least a few tied webbing runners.

The perlon for your four prusik loops may be either 5mm or 6mm. 6mm is stronger but 5mm grips better when used as a prusik loop. Opinions vary about which is preferable - perhaps a good discussion topic in your SIG.

Student Height	Harness Prusik	Foot Prusik
5'0"	5'	11'
5'6"	5'6"	11'6"
6'0"	6'	12'
6'6"	6'6"	13'

Further reading on clothing and equipment: [Freedom 8](#), chapters 2, 3 & 9.

### Required Equipment Matrix

This matrix is a guide for deciding what equipment to bring for various types of outings. As you gain experience, you will learn whether you are generally cold or warm in various conditions, and you will see which items you seem never to use and which items you always want to have. Based upon these insights, you will develop your own personal equipment matrix. For the duration of the class, however, please follow this one.

	Rock Climbs	Glacier Climbs		Rock Climbs	Glacier Climbs
Required Equipment (X), Optional Equipment (O)					
1" or 9/16" tubular nylon webbing (or sewn runners) as follows:			Gloves (wool/synthetic)	X	X
Three 5 ft runners ( or 60cm/24in sewn runners), color A	X	X	Second pair gloves/mittens <sup>(T)</sup>		O
Two 9 ft runners (or 120cm/48in sewn runners), color B	X	X	Mitten shells (overmitts)	O	X
One 120 cm nylon (not Dyneema) sewn runner	X	X	Day pack (frameless or rucksack) <sup>(4)</sup>	X	O
Chest harness: one 8 ft webbing, color C			Overnight pack (internal or external) <sup>(4)</sup>	Note 5	X
5mm or 6mm perlon in 3 lengths:	X	X	Compass <sup>(T)</sup>	X	X
Foot Prusik (length per above chart), color D	X	X	Map of climbing destination <sup>(T)</sup>	X	X
Harness Prusik (length per above chart), color E	X	X	Sunglasses/eye protection <sup>(T)</sup>	X	
2 Tie-off "hero" loops, 4 ft, color F	X	X	Glacier glasses w/side shields <sup>(T)</sup>		X
Commercial seat harness	X	X	Sunscreen <sup>(T)</sup>	X	X
Leather belay gloves	X	X	Lip balm w/sun protection <sup>(T)</sup>	X	X
Climbing helmet	X	X	Insulating sit-pad	O	O
Six non locking carabiners. No tiny ones like Nano/ Mini but wire gate OK	X	X	Headlamp <sup>(T)</sup>	X	X



Three additional locking carabiners - may be smaller than the pearbiner	X	X	Extra batteries (and bulb if not LED) <sup>(T)</sup>	X	X
Munter hitch carabiner (pearbiner) <sup>(1)</sup>	X	X	First aid kit <sup>(T)</sup>	X	X
Rescue pulley (lightweight, for alpine)		X	Waterproof matches or lighter <sup>(T)</sup>	X	X
Ice Axe		X	Fire starter <sup>(T)</sup>	X	X
Front-point crampons		X	Knife <sup>(T)</sup>	X	X
Chock pick	X		Food	X	X
Belay device	X	X	Extra food <sup>(T)</sup>	X	X
Insulating hat (wool or synthetic)	X	X	Water bladder/bottle (wide mouth) <sup>(T)</sup>	X	X
Sun hat or bandanna	X	X	Second water container <sup>(T)</sup>	X	X
Underwear (wool or synthetic)	X	X	Water filter or purification method (one per 2-3 climbers) <sup>(T)</sup>	Note 6	X
Thermal base layer--pants and LS shirt (wool or synthetic)	X	X	Emergency shelter <sup>(T)</sup>	X	X
Shirt/Sweater, SL and LS (wool/synth)	X	X	Paper and pencil (or waterproof pen)	X	X
Thermal insulating top	X	X	Toilet kit	X	X
Wind shell jacket <sup>(2)</sup>	O	O	Sleeping bag	Note 5	X
Rain shell jacket, breathable <sup>(T)</sup>	X	X	Insulating pad	Note 5	X
Pants (wool/synthetic)	X	X	Tent (can be shared) or bivy sack	Note 5	X
Second pair pants (wool/synthetic)	O	O	Stove and fuel (one per two climbers)	Note 5	X
Rain pants, breathable <sup>(3)</sup>	X	X	Pot (one per stove)	Note 5	X
Gaiters (full length)		X	Bowl and/or cup	Note 5	X
Boot socks (wool/synthetic) 2 pair	X	X	Spoon	Note 5	X
Liner socks <sup>(T)</sup> 2 pair	O	O	Ear plugs/ eye cover	Note 5	0
Mountaineering boots	X	X			

**Equipment Matrix Notes:**

1. The munter hitch requires an oversize carabiner (“pearabiner”) with a locking sleeve.
2. You may want an inexpensive wind shell jacket for rock climbs to avoid abrading your expensive waterproof/breathable climbing parka.
3. A full-length side zipper is desirable – easier to take on and off with boots and crampons.
4. Instead of two separate packs, a large internal frame pack that can be compressed for day climbs may be used.
5. You will need overnight gear on some rock, alpine and glacier climbs.
6. It may be necessary to filter or purify water on long day trips.

(T): part of the Ten Essentials

All personal equipment should be marked in a prominent location with the owner’s name or initials to make identification easy when commingled with other people’s equipment, a common occurrence on climbs. Carabiners and similar articles should be marked with paint, enamel, nail polish, or electrical tape in a distinctive color or pattern.

## CLIMB ON!

It is the rare student who gets three summits in three tries. Weather, route finding problems, snow conditions, and bad karma will sometimes keep you from summiting. Therefore, the best strategy is to plan several attempts, and to schedule them as early in the season as you can. Because the glacier climb is generally the hardest summit to achieve, plan to schedule two or three. Rock climbs are generally in shape late in the summer when fewer glacier routes are passable.

### *Selecting Your Climbs*

You will spend the first half of the year developing skills and getting in shape for climbing, but not all students will want to start off climbing at the same level. There is a considerable range of difficulty among the basic climbs offered. Choose trips in your comfort zone, being realistic about your physical and technical abilities. Not all climbs are for all climbers.

### Basic Climbs Guide

To become familiar with the climbs, read through the Basic Climbs Guide. It can be found on the [basic-alpine](#) class website and downloaded or printed. The guide includes detailed route descriptions, driving and approach information, as well as permit and fee requirements. There is also a brief overview of the climbs in the Quick Climbs Reference, Appendix A of this handbook, which rates the climbs by both strenuousness and technical difficulty to help you identify those most appropriate for you.

### *Getting On Your Climbs*

Your fellow students will be competing with you for space on scheduled climbs. That climb you carefully selected may be full before you can sign up. Additionally a number of SIG leaders post climbs specifically for their SIG students. These climbs will be full prior to even being posted. Here are some strategies to help you get your three summits:

- **Check the listings frequently:** found under “Get Outside & Explore” at [mountaineers.org](#).
- **Better yet:** Join the Google group that emails you notification of all new basic climbs as they are posted (see p. 5). Basic climbs fill fast; sign up ASAP.
- **Use the wait list:** We discourage last minute cancellations but they happen, and then the leader will try to fill the roster from the wait list. If you are near the top of a wait list, you might try emailing the leader to say you are packed and ready for a last-minute call.
- **Be opportunistic:** If the climb you wanted is full, look for other climbs that may still have openings. A peak you never heard of may turn out to be a wonderful adventure.
- **Check back:** Return to the web site as the climb date nears to see if cancellations have created openings on any climbs.
- **Check other Mountaineers branches:** With other branches, signup is usually done by contacting leaders directly. Their contact information is in the online activity listing, and they are often willing to take Seattle students.
- **Check the Basic Alpine Facebook Page:** Leaders sometimes post there when looking for students to fill a roster.
- **Ask your SIG leader:** Your SIG leader is not obliged to plan private climbs for the group but some do.
- **SIG climbs (not your own):** Several days prior to the climb email the leader know you are available on short notice should someone drop from the climb at the last minute.

### ***The Climbing Code***

Participants on all Mountaineers sponsored climbs must adhere to the climbing code:

- A climbing party of three is the minimum, unless adequate prearranged support is available. On crevassed glaciers, two rope teams are recommended.
- Carry the necessary clothing, food, and equipment.
- Rope up on all exposed places and for all glacier travel. Anchor all belays.
- Keep the party together, and obey the leader or majority rule.
- Never climb beyond your ability and knowledge.
- Never let judgment be overruled by desire when choosing the route or turning back.
- Leave the trip schedule with a responsible person.
- Follow the precepts of sound mountaineering as set forth in textbooks of recognized merit.
- Behave at all times in a manner that will reflect favorably upon mountaineering and The Mountaineers.

### ***Club Standards***

All members of The Mountaineers, in order to attain the club's purposes—to explore, study, preserve and enjoy the natural beauty of Northwest America—in spirit of good fellowship shall subscribe to the following:

- To exercise personal responsibility and to conduct themselves on club activities and premises in a manner that will not impair the safety of the party, or prevent the collective participation and enjoyment of others.
- Private property must be respected.
- The use of alcohol and other drugs or medications, when incompatible with The Mountaineers activities because of their effects on ability and judgment, is prohibited when such use would affect the safety of the party or impair the collective participation and enjoyment of others.
- To enter the outdoors as visitor, leaving behind no debris, environmental scars, or other indications of their visit, which would reduce the enjoyment of those who follow.
- Pets, firearms, or any other items which will impair the safety or enjoyment of others shall not be brought on The Mountaineers premises or taken on club activities.
- To obey those specific regulations imposed by the Board of Trustees, Branches and Divisions of The Mountaineers, which are necessary to implement the above.
- To minimize the environmental impact on the outdoors by using campfires only in properly designated areas and extinguishing them completely after use; conducting human sanitation and washing away from watercourses; and carrying out all solid waste.

Members of The Mountaineers who deviate from this philosophy and from the specific club regulations may be subject to disciplinary procedures of the club, including expulsion.

***In Case you Are Late Returning - Reporting an Overdue Climber (Or Not)***

Climbs are often long and strenuous, take place on Mother Nature's terms, and are done with safety as the paramount concern. As a result, on some climbs the party may be late returning home. Occasionally, climbers must bivouac for an additional night and not return until the following day. For this reason it is important that you advise your spouse, parents, close friends, or co-workers of your plans and the proper procedure for reporting an overdue climber.

Best not to promise return by a certain time. Non-climbers may have an exaggerated idea of the dangers involved in our sport and may fear the worst if you are late even by a few hours.

Climb leaders have been chosen for their technical ability, reliability, and leadership qualities. They can perform or assist with proper first aid and mountain rescue procedures. They designate someone to notify club officials if the party will be late returning or does not return by a designated time and day. Therefore, if a party is overdue or if the climbing party sends someone out, the proper rescue procedures will be initiated and the families of the party members will be notified.

Family and friends should not call rescue authorities directly if a climber is overdue on a basic climb. If the climber has not phoned or returned home by noon the following day, they should call the following: Seattle Mountaineers Emergency Line: (206) 521-6030. Review the page [Reporting an Overdue Climber](#) on the [Mountaineers](#) web site.

Please be assured there are always enough people monitoring the basic climbs and activities that should rescue personnel be required, the student's family or friends need NOT initiate the rescue process.

For each climb, you may wish to make a copy of this page, filling out the form below, and leave it with your designated contact. Please discuss this procedure with your contact person prior to going on field trips or climbs.

**TO BE LEFT WITH A RESPONSIBLE PERSON**

Mountain/ Route -

Climb Date(s) -

Expected Return Date & Time-

Ranger Station-

Mountaineers Climb or Private Climb (circle one)

Climb Leader & Phone Number-

Carpooling With, & Phone Number(s)-

Other Party Members (with Phone Numbers)-

## **APPENDIX A – BASIC QUICK CLIMBS REFERENCE GUIDE**

This table gives a brief comparison of the most common basic experience climbs. The T/S column refers to the technical difficulty/strenuousness of a given climb. The scale compares basic climbs only to other basic climbs. The scale is from 1 to 5, with 1 being easiest compared to other basic climbs and 5 being hardest. (Ratings represent an average of the opinions of several experienced climb leaders.) Technical difficulty refers to the technical challenge as well as exposure. Strenuousness refers to the physical demands or the level of conditioning required. In the season column, each letter represents a month. The suggested best season will vary depending on the current year's weather patterns and snowpack.

For more detailed information about these climbs, consult the Basic Climbs Guide. It is posted on the basic-alpine class website.

<b>Destination/Route</b>	<b>Days</b>	<b>Type</b>	<b>T/S</b>	<b>Season</b>
Adams/Mazama Glacier	2	BG	3/3	---JA--
Anderson/Anderson Glacier	2	BA	1/4	-MJJA--
Baker/Boulder Glacier	2	BG	3/3	--JJ---
Baker/Coleman Glacier	2	BG	3/3	--JJA--
Baker/Easton Glacier	2	BG	3/3	--JJA--
Brothers/S Couloir	1	BA	1/2	-MJJASO
Cathedral Rock	1	BR	2/1	--JJASO
Chair Peak/NE Buttress	1	BR	3/3	-MJJASO
Clark/Walrus Glacier	2	BG	2/4	--JJA--
Constance/S Chute	2-3	BA	3/4	--JJASO
Corteo Peak/SW Ridge	2	BA	2/3	--JJASO
Cruiser/SW Corner	2	BR	2/3	--JJASO
Curtis Gilbert/Conrad Glacier	2	BA	1/2	--JASO
Cutthroat/W Ridge	1	BR	2/1	--JJASO
Daniel/Lynch Glacier	2	BG	2/2	--JJA--
Dome Peak/Dome Glacier	3	BG	2/5	---JAS-
Dragontail/Colchuck Col	2	BA	2/2	-MJJA--
Eldorado Peak/Inspiration Glacier	2	BG	2/3	---JAS-
Fin (N Cascades)/NE Ridge	1	BR	2/2	-MJJAS-
Foggy Peak/N Ridge	2	BR	2/2	---JAS-
Garibaldi /E Face	2	BG	3/3	AMJ----
Glacier Peak /Kennedy Glacier	3	BG	3/5	--JJA--
Glacier Peak/Sitkum Glacier	2	BG	2/4	--JJASO
Glacier Peak/Vista Glacier	3	BG	3/5	--JJA--
Guye Peak/W Face	1	BR	2/1	-MJJASO
High Priest/N Face	2	BR	5/3	-JJASO
Hood/Cooper Spur	2	BG	5/2	-MJJ---

Hood/S Side	1	BG	2/1	-MJ----
Icy/W Route	2	BA	2/3	--JJAS
Ingalls, E Peak, SW Face	1	BR	2/2	--JJASO
Ingalls/S Face	1	BR	2/2	--JJASO
Ingalls/SW Face	1	BR	1/2	--JJASO
Jefferson (E)/Whitewater Glacier	3	BG	3/3	--JJA--
Kangaroo Temple/N Face	1	BR	4/2	-MJJASO
Little Tahoma/E Shoulder	2	BG	3/3	--JJA--
Logan/Banded Glacier	3	BG	3/5	--JJA--
Logan/Fremont Glacier	3	BA	2/4	-JJA
Lundin/W Ridge	1	BR	2/1	-MJJASO
Mixup/E Face	2	BR	4/4	---JAS
Monte Cristo/N Col	2	BA	2/2	--JJA--
N Twin Sister/W Ridge	1	BA	1/2	-MJJASO
Olympus/Blue Glacier	3-4	BG	3/4	-MJJA--
Rainier/Emmons Glacier	2	BG	5/5	--JJA--
Rainier/DC	2	BG	5/5	--JJA--
Redoubt/S Face	3	BA	4/4	--JJA
Ruth-Icy/Traverse	2	BG	2/3	---JASO
S Early Winter/S Arete	1	BR	2/1	-MJJASO
Sahale/Quien Sabe Glacier	2	BG	2/3	---JAS
Sahale/S Slope	1	BA	1/3	---JASO
Sharkfin Tower/E Face	2	BR	2/3	---JAS
Sherpa/S Route	2	BA	2/4	---JAS
Shuksan/Fisher Chimneys	2	BG	4/4	---JA--
Shuksan/Sulphide Glacier	2	BG	2/3	--JJA--
Silverstar/Silverstar Glacier	1	BA	2/1	-MJJAS
SlipperySlab Tower/NE Face	1	BR	2/2	-MJJASO
Sloan Peak/Corkscrew Route	2	BA	2/2	---JAS
Snowfield Peak/Neve Glacier	2	BG	2/3	--JJA--
Snowking/NE Shoulder	2	BA	1/4	-MJJASO
Spickard/S Ridge	3	BA	2/4	--JJAS
Stuart/Cascadian Couloir	2	BA	2/4	---JAS
Temple/W Side	2	BR	3/3	---JAS
Three Fingers/W Route	2	BR	3/3	---JAS
Tom/White Glacier	3	BG	3/5	-MJJA--
Tooth/S Face	1	BR	3/2	AMJJASO
Unicorn/S Side	1	BA	1/1	--JJASO
Warrior/SE Summit	2	BA	2/3	-MJJAS

Wedge/W Ridge	3	BG	1/3	-MJJ---
Whitehorse/NW Shoulder	1	BA	2/4	AMJ----
Witch's Tower/SW Corner	2	BR	1/3	-JJAS
Yellowjacket Tower/E Flank	1	BR	3/1	AMJJASO

## APPENDIX B – OTHER RESOURCES

Accidents in North American Mountaineering, The American Alpine Club

Alpine Climbing: Techniques to Take You Higher, Mark Houston & Kathy Cosley

Cascade Alpine Guide, Volumes 1-3, Fred Beckey

Classic Climbs in the Northwest, Alan Kearney

Climber's Guide to the Olympic Mountains, Olympic Mountain Rescue Council

Climbing the Cascade Volcanoes, Jeff Smoot

Climbing: Training for Peak Performance, Clyde Soles

Climbing Washington's Mountains, Jeff Smoot

Conditioning for Outdoor Fitness, David Musnick & Mark Pierce

Extreme Alpinism: Climbing Light, Fast and High, Mark Twight, James Martin, & Don Graydon

Mountaineering: A Woman's Guide, Andrea Gabbard

Rock Climbing Anchors: A Comprehensive Guide, Craig Luebben

Rock Climbing: Mastering Basic Skills, Craig Luebben

Selected Climbs in the Cascades, Volumes 1-2, Jim Nelson & Peter Potterfield

Staying Alive in Avalanche Terrain, Bruce Tremper

The Outdoor Athlete, Courtenay & Doug Schurman

The Rock Warrior's Way: Mental Training for Climbers, Arno Ilgner

Train to Climb Mt. Rainier, DVD, Courtenay & Doug Schurman (available through bodyresults web site below)

If you are looking for books to add to your personal library, The Mountaineers bookstore has a wide selection of titles available at a discount to members. For more information, click on the Library and Bookstore under the "About Us" tab on [www.mountaineers.org](http://www.mountaineers.org).