

Welcome to The Mountaineers 2020 Basic Alpine Climbing Course





Objectives for tonight

- Understand the structure of the course
- Prepare for Field Trip 1:
 - Knots
 - Top-rope belay skills
 - Rope ascending skills
- What's next?



Big picture: Course goals



- Master Basic mountaineering skills with a focus on safety
- Connect with the Mountaineers climbing community
- Stimulate your curiosity about taking advanced courses, and contribute to the Club as volunteers, instructors, leaders
- Have an amazing experience and be proud of your accomplishments

Big picture: Instructors



- **Volunteers**, who love to climb – and teach!
- Love introducing people to the mountains
- Paying it forward and passing on the legacy
- Do their best in their own way to provide a safe and excellent experience. All have Mountaineers approval, very few have professional (AMGA, AAC) certification.
- Hope you'll be thrilled about the course and that you will want to volunteer in the future





Big picture: Time commitment

- Winter: read, learn, practice and get in shape.
Skills nights, SIG events, Field trips
Navigation and/or First Aid.
- Spring: read, learn, practice, continue conditioning.
Skills nights, SIG events, Field trips
Navigation and/or First Aid.
- Summer & Fall: climb, climb, climb.
... and graduate!



Course
structure:

Small

Instruction

Group

. . . your
support team





SIG events

- Skill practice sessions
- Rock field trip
- Snow overnight field trip
- Informal conditioners





Skills nights

Purpose: to practice skills with fellow students and get ready for field trips

Most Monday nights, 1/6 – 5/18.

Skills nights are optional, however, they are highly recommended.

SIG leaders *might* organize for SIG.

You can join w/o your SIG.

Seattle Basic Climbing - Optional Student Skills Practice (optional)			
Seattle Program Center	Mon, Jan 6, 2020 Registration closed Jan 4	98 participants 21 instructors	David Shema
Seattle Program Center	Mon, Jan 13, 2020 Registration closes Jan 11	109 participants 27 instructors	Alina Badus
Seattle Program Center	Mon, Jan 20, 2020 Registration closes Jan 18	109 participants 27 instructors	David Shema
Seattle Program Center	Mon, Jan 27, 2020 Registration closes Jan 25	118 participants 27 instructors	Alina Badus
Vertical World Redmond	Mon, Jan 27, 2020 Registration closes Jan 25	8 participants 0 instructors	John Angulo
Seattle Program Center	Mon, Feb 3, 2020 Registration closes Feb 1	109 participants 29 instructors	David Shema
Seattle Program Center	Mon, Feb 10, 2020 Registration closes Feb 8	111 participants 26 instructors	Glenn Eades
Seattle Program Center	Mon, Feb 17, 2020 Registration closes Feb 15	116 participants 27 instructors	Tad Englund
Seattle Program Center	Mon, Feb 24, 2020 Registration closes Feb 22	118 participants 28 instructors	Tad Englund
Seattle Program Center	Mon, Mar 2, 2020 Registration closes Feb 29	105 participants 29 instructors	Tad Englund
Seattle Program Center	Mon, Mar 9, 2020 Registration closes May 7	104 participants 28 instructors	Tad Englund
Seattle Program Center	Mon, Mar 16, 2020 Registration closes Mar 14	103 participants 27 instructors	Tad Englund
Seattle Program Center	Mon, Mar 23, 2020 Registration closes Mar 21	106 participants 28 instructors	Tad Englund



Lectures

Purpose: Introduction of skills, cover a variety of topics

Attendance at all lectures is highly recommended.

Slides should be available under Course Materials.

Prepare by reading relevant chapters in Freedom of the Hills.

- 1) Course introduction, Top rope belay/lower, Rope ascending
- 2) Rappels, Belays, & Anchors (1/29)
- 3) Alpine Rock (3/4)
- 4) Snow Travel, Avalanche (4/1)
- 5) Glacier travel, the Climbing team (4/29)



Field trips

Purpose: Practice skills,
demonstration of skills.

All Field trips are mandatory.
They will happen rain or shine.
Most happen at the Program Center.

Sign up via webpage.

Please contact field trip leader if you have issues with a specific event.

Please contact Jan Abendroth with general questions.

We can sometimes accommodate if needed, not for everyone and every event.

Field trip curriculum online:

<http://tinyurl.com/seattle-basic-curriculum-2020> (v. 2019-02-03 is current)

Seattle Basic Field Trip #1 - Top-rope Belay/Lower, Anchor Intro. & belays.

Seattle Program Center	Thu, Jan 16, 2020 Registration closes Jan 14	2 participants on waitlist 7 instructors	Jan Abendroth
Seattle Program Center	Fri, Jan 17, 2020 Registration closes Jan 15	3 participants 15 instructors	Loni Uchytel
Seattle Program Center	Wed, Jan 22, 2020 Registration closes Jan 20	5 participants 7 instructors	Brian Seater
Seattle Program Center	Thu, Jan 23, 2020 Registration closes Jan 21	27 participants 15 instructors	Jan Abendroth



Field trips

#1: Top rope belay, ascending	Jan 16,17,22,23	4x week nights	PC
#2: Rappels, belays, anchors	Feb 8,9,15	3x full days	PC
#3: Rock <u>evaluations</u>	Mar 21,22,29	3x <u>half days</u>*	PC
		*AM or PM session	
#4: Snow travel	Apr 25,26 May 2	3x full days	Snoqualmie
#5: Crevasse rescue <u>eval.</u>	May 6,7,13,14	4x week nights	Kite Hill

SIG field trips

- SIG Rock: Rock climbing practice **full day** various
- SIG Snow: Snow overnight **full weekend** various

Additional conditioning requirement

Mt. Si in less than 2 hours, pack with 25 lb or 20% of body weight



Climbs!

- Graduation requirement: 1x rock (BR), 1x glacier (BG)
- Alpine climbs (BA) -less rock and/or glacier- can be very fun and no less challenging.
- Planning on taking Intermediate next year: aim for 5+ climbs
- Check the climb listings frequently, sign up for alerts: <http://mountaineers-events.appspot.com/>
- Mark calendar with climb registration dates
- Sign up early, cancel if necessary, **don't** be a “no show”
- Respect “leader permission”, or “for SIG only until” notes
- Consider keeping an updated climb/scramble/conditioning resume handy, leaders might ask for it.

Graduation



- Requirements:
 - conditioning and field trips
 - Navigation, First Aid, Stewardship
 - 1x BR and 1x BG climb
- Access to all Basic climbs, all summer and winter scrambles
- Gateway to several advanced courses:
 - Intermediate Alpine, full package
 - Intermediate Alpine Glacier, Rock or Ice modules
 - Aid & Big Wall climbing
 - Water Ice climbing
 - Other climbing seminars, clinics, and courses
- Become another fantastic volunteer within this incredible outdoor adventure community!





Wilderness First Aid

- Wilderness First Aid (16 hrs) + Scenario session = First Aid badge
- Multiple sessions available; credit must be completed before graduation deadline. Look for WFA/WOFA, not WFR
- High demand course - be proactive signing up!
- Can be done with other branches



Partial or full equivalency available for holders of current backcountry/wilderness medicine certifications. Contact First Aid course leader to determine eligibility.

*Note: Front-country only medical training **does not** qualify for equivalency.*



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Photo by SuJ'n Chon ©2013 SuJ'n Chon Photography



Wilderness Navigation

Navigation Course includes four activities:

- 1) eLearning workshop Jan-March
- 2) GPS online module Jan-March
- 3) In-person workshop 1/28, ..., 4/2 (1 of 5 events)
- 4) Field trip 2/22, ... , 4/25 (1 of 5 events)



All information can be found here:

<https://www.mountaineers.org/locations-lodges/seattle-branch/committees/seattle-navigation-committee/course-templates/basic-navigation-course/wilderness-navigation-course-seattle-2019-2>

You can join other branches too!



Resources

- Student handbook: Your first reference
- Basic curriculum online: Detailed information on field trips
<http://tinyurl.com/seattle-basic-curriculum-2020>
- Freedom of the Hills v9
- Your SIG: your first point of contact for all questions
- Basic climbing webpage:

Course Requirements

Roster

Required Equipment

Course Materials

Seattle Basic Climbing Lecture #1 - Course Introduction, Top-rope Belay/Lower, & Rope Ascending

Seattle Program Center	Tue, Jan 7, 2020 Registration closed Jan 5	2 participants 22 instructors	Karl Themer
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Seattle Basic Field Trip #1 - Top-rope Belay/Lower, Anchor Intro. & belays.

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Course Requirements

Roster

Required Equipment

Course Materials

NAME/DESCRIPTION

2020 Basic Climbing Handbook
2020 Seattle Basic Climbing Handbook

TYPE

File

Basic Field Trips CURRICULUM - Folder
Field Trips 1-5 Curriculum Outline

Folder

Crevasse Rescue Illustrated 2018
Crevasse Rescue Illustrated 2018

File

SIG Rock Field Trip
SIG Rock Field Trip

File

SIG Snow Field Trip
SIG Snow Field Trip

File

Lectures
Collateral from the lectures

Folder



This is *your* class!

- Success is in your hands
- Prepare for lectures and field trips, read up
- Be proactive: check your calendar against event dates
- Work with your SIG to stay on track with skills and conditioning.
- Any questions / issues:
General: Alina Badus - basic.climbing@gmail.com
FTs: Jan Abendroth – jan.abendroth@gmail.com
Graduation: Glenn Eades – gleades@me.com
- We want you to succeed and we are here to help!



Beta and Brews for Basics!

- Have a beer and listen to Beta on a special climb.
- Once a month, mostly focus on advanced climbs

- April 30th, 7-9pm

Five presentations of less traveled Basic climbs





Feedback!

- After each trip you will be asked for feedback.
- Feedback via the webpage is anonymous.
- We read feedback and take it seriously. Some improvements of the class started with feedback.
- Please let us know!



Field Trip 1: Knots, Belaying & Prusiking

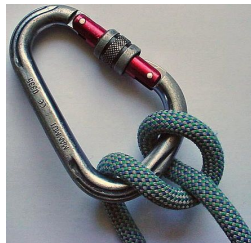
*Chapters 9, 10 & 18
in Freedom of the Hills 9 (FotH9)*



Knots!

Discuss at your table knots for FT #1:

- a) **how to tie them,**
- b) **what is their purpose**
 - Figure-8, also reweven and on a bight
 - Munter hitch
 - Prusik hitch
 - Double Fisherman bend



Other knots and hitches you will learn throughout the class

Knots: Overhand, water, slip, butterfly, bowline (single and double)

Hitches: girth hitch, clove hitch

Bends: water (knot)

Knots, hitches, bends



- Why are there so many knots?
- Why is it important to learn them well?
- What is the difference between a knot and a hitch?



Knots, hitches, bends

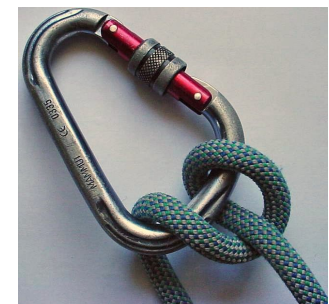
- Why are there so many knots?
 - Each knot has specific uses for which it is suited
 - For instance: tie-in to end of rope, to the middle, join two ropes together, etc.
Some are used with slings, some with cord or rope. Some have a specific purpose, such as tying off the belay.
- Why is it important to learn them well?
 - Climbing safety relies on correctly tied knots
 - Well-tied knots are easy to recognize during partner check, for instance, can you recognize the Spaghetti knot?

www.animatedknots.com (Climbing section)



Knots, hitches, bends

- Difference between a knot, bend, and a hitch?
 - Knots are usually tied with the rope only and create an endpoint (e.g. Figure 8 on a bight). A properly tied knot should not move.
 - Bends usually attach two ropes together (e.g. Double Fisherman's Bend).
 - Hitches connect a rope to another object, such as a carabiner (e.g. Munter hitch). A hitch can move!



Top rope belay - PBUS



- American Alpine Club (AAC) Universal Belay Standard (PBUS)
- Observe the interaction between belayer and climber and identify the skills and commands . . .
 - What am I seeing?
 - What does the belayer say and do?
 - What does the climber say and do?
 - Why is it important?



<https://youtu.be/CFIz4cBFVro>

Top rope belay - PBUS



- What did you see?
- What did the belayer say and do?
- What did the climber say and do?
- Why is it important?

Top rope belay discussion



What did you see?	Why is it important?
Gear Check (harness, tie-in, belay set up, anchor)	Ensures proper fit of harness, rope connection to climber, belayer and anchor, belay set-up
Device vs. Munter	Different set up, different rope handling, proper set up prevents climber from falling.
Stance	Belayer anticipates direction of pull, protects brake hand, avoids hitting wall and losing grip, minimizes distance of fall.
Communication, Attentiveness	Each person knows exactly what will happen next, clear commands, first names used, focus.
Rope handling	Maintains clean rope pile, applies friction to belay as quickly as possible to limit distance of fall.
Smooth lower with both hands	Limits stress on anchor and/or injured climber after a fall.



Tubular belay device

Also referred to as an ATC:

- Friction is achieved by bends in the rope
- Rope bends help brake hand (how many bends here?)
- *Never* take brake hand off the rope
- Always concentrate on the climber and listen
- Correct position of brake hand is very important!



Belay loop





Munter hitch belay

Alternative to tubular belay device, HMS*

- Friction is achieved by rope bends and rope rubbing against rope
- Advantage: rope runs very fluid, fast belay
- Orientation of hand has less influence on brake strength
- *Never* take brake hand off the rope

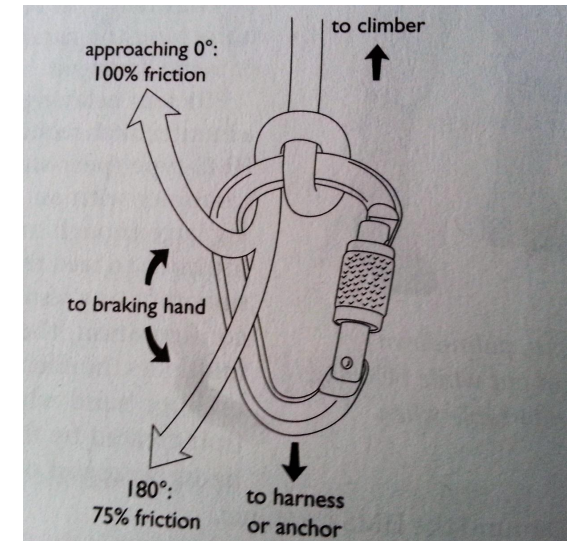


Werner Munter

More friction,
more brake strength



Less brake strength,
still 75% of strong position



HMS: Halbmastwurfsicherung

Top-rope belay – takeaways



- There are several key components to safe belaying
- All components must be performed with competence/mastery to prevent climber from falling, and/or limit extent of fall
- Although not that hard or complicated it is extremely critical to get it right
- Poor belaying can cause injury / death
- Learn how to belay like you are preparing for the Belay Olympics

10 minute break!



We will continue with
rope ascending demo





Ascending a rope

There are several techniques how to ascend a rope.
We focus on the Texas prusik method, FotH 9, p. 395/410

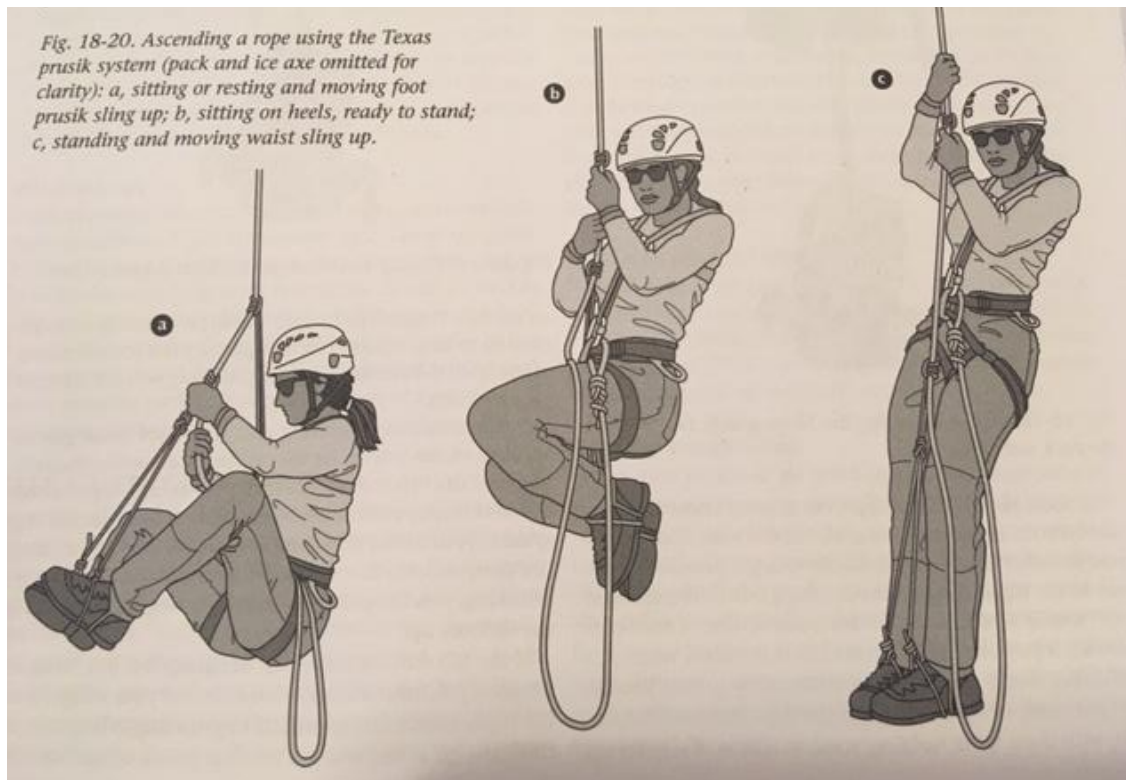
- Remain at your tables
- Intermediate students will demonstrate Texas prusik
- Observe the demonstration and try to identify the skills, asking yourself, . . .
 - What am I seeing?
 - Why is it important?
- After the demonstration discuss the questions above:
 - Make notes on what you've learned
 - Be ready to share when we come back together

—

Ascending a rope - takeaways



- What did you see?
- Why is it important?
- What do we use it for?





Ascending a rope

What did you see?	Why is it important?
Friction knot use	Facilitates ascent; move it & leave it alone, don't keep hands on them or they may loosen
Chest harness use	Helps maintain balance while ascending rope
Removing pack	Improves balance; allows faster ascent of rope
Rope backup	In the case of prusik knot failure, back up prevents catastrophic slip down rope
Note on Friction	Amount of friction related to difference in diameters of the ropes. Ideal difference is 2.5 mm to 3 mm.

Ascending a rope - takeaways



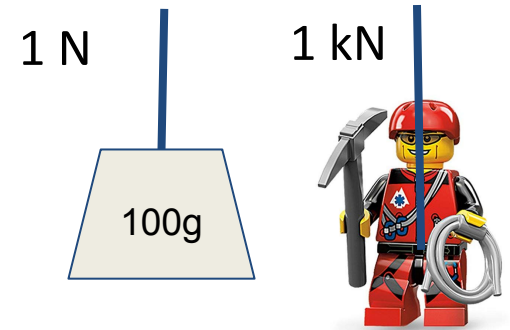
- There are several key components to safe prusiking
- All components must be performed with competence/mastery to achieve self-rescue
- Although not that hard or complicated it is extremely critical to get it right
- Used primarily for self-rescue from a crevasse



Gear strength



- kN = kilo newton
 - measure of force
 - 1 climber with gear (100 kg/220 lb), static
- How much force can gear take?
 - carabiner: 8-25 kN
 - rope: >11kN, rope stretch reduces force
- How much force causes harm on climber?
 - 6-8 kN cause significant injuries (tests on crash-test dummies)





Gear strength - takeaways

- Your gear is rated much stronger than it needs to be to keep you alive
- As long as you care for it, use it as directed and ensure it is in good condition gear failure is very unlikely
- You are responsible for knowing how your harness is properly used. Not all harnesses are the same.
- Read the care instructions for your gear (download the *.pdf files on manufacturers' websites):
 - Store it clean & dry
 - Store it in an airy place (not closed up)
 - Store it away from chemicals



Field trip #1

- Thu 1/16 (waitlist), Fri 1/17,
Wed 1/22, Thu 1/23** (many free spots)
 - Sign up if you have not done yet
 - Arrive by 6:15pm, sign in, gear up, and ready at 6:30pm
- Please check website for gear
 - Bring hiking or approach shoes, no mountaineering boots
 - Please read [curriculum online](#) (Course materials) and Foth



Field trip #1, cont.

- We will work in two groups:
 - A) Beginners who have not climbed (in the gym) before, who are not familiar with PBUS: Stations 1 and 2
 - B) More advanced climbers who are familiar with belay and PBUS: Stations 2 and 3
 - Everyone only has to do 2 stations
 - Prusik/rope ascending station can be checked off by SIG leader or host of Monday night skill sessions
- Stations:
 - Station 1: Harness fit
 Top rope belay and lowering on climbing wall
 - Station 2: Belay with Munter and anchor tie-in
 - Station 3: Rope ascending



Welcome to the Basic Alpine Climbing Course!



We look forward
to go climbing with you!!

Questions?

