

LECTURE #1

Course Introduction, Clothing/Equipment, Safety & Roped Climbing Overview

Lecture 1 Topics									
Course Introduction & Overview									
Course Requirements									
Fundamental Skills									
Knots									
Clothing and Equipment									
10 Essentials Systems									
Mountaineers' Climbing Code									
Conditioning									
Field Trip Leader Q & A (Field Trip #1 Prep, Field Trip #1)									
Assigned Reading (complete prior to Field Trip #1)									
<p><i>The Freedom of the Hills, 9th edition</i></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">First Steps</td> <td style="width: 50%;">Chapter 1</td> </tr> <tr> <td>Clothing and Equipment</td> <td>Chapter 2</td> </tr> <tr> <td>Conditioning</td> <td>Chapter 4</td> </tr> <tr> <td>Basic Safety Systems</td> <td>Chapter 9</td> </tr> </table> <p><i>Basic Rock & Glacier Climbing Course Manual</i> All Lecture #1 Material</p>		First Steps	Chapter 1	Clothing and Equipment	Chapter 2	Conditioning	Chapter 4	Basic Safety Systems	Chapter 9
First Steps	Chapter 1								
Clothing and Equipment	Chapter 2								
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Additional Resources									
<p>www.bodyresults.com: Mountain climbing conditioning video and articles on sports specific training</p> <p>www.animatedknots.com: Animated instruction on knot tying</p>									

GENERAL INFORMATION

Welcome to the Tacoma Mountaineers Basic Rock and Glacier Climbing Course (BRGCC). This course is an introduction to the fundamentals of basic alpine climbing involving ROPED rock and glacier climbing. The course is physically, mentally, and emotionally demanding as well as time-consuming, but the rewards are many.

The BRGCC Committee has planned a program of instruction that we believe will provide you with the fundamental information and skills to become a competent and safe **BEGINNER** Mountaineer. This course is designed to provide a foundation for more advanced training.

By successfully completing the **Basic Rock and Glacier Climbing Course**, participants will learn about:

- * Equipment for roped alpine climbing
- * Physical conditioning needed for comfort and safety
- * Fundamentals of roped climbing, belaying, following a leader, and rappelling
- * Rock climbing techniques
- * Glacier and snow travel
- * Crevasse rescue

We aspire to be the safest and most adventurous climbing community in the Pacific Northwest. We are motivated by the adventure of climbing, exploring, and experiencing the great outdoors. As volunteers and climbers, we do our best to provide quality instruction and climbing opportunities in a fun environment. We teach sound and specific mountaineering techniques so we can all climb safely together and rely on each other in the event of an emergency. We hope you will enjoy this course, explore a few peaks with us, make new friends, and become a part of our climbing community.

Our goal is to make each student a safe, happy, and confident climber. If at any time you have a question, comment or problem during the course, please contact the appropriate member of the committee. We want you to complete this course and have a good time doing it.

BRGCC GRADUATION REQUIREMENTS

All requirements must be fulfilled, preferable in one, but within two years of starting the course.

1. Attend all 5 *Tacoma Mountaineers Basic Rock & Glacier Climbing Course (BRGCC)* lectures and pass the written exam.
2. Satisfactorily complete all the field trips, including 2 weekend field trips (both days, one overnight), 4 Friday, Saturday or Sunday field trips, and 3 midweek evening field trip preps.
3. Satisfactorily complete one of two conditioner hikes with a Tacoma Basic Climbing Committee member. The first conditioner must be completed prior to the Winter Overnight FT3 (NOTE: if a student is able to ascend the specified peak in less than 2 hours with adequate weight, only one conditioner hike needs to be completed). The second conditioner hike must be satisfactorily completed prior to the Rock 2 Field Trip (FT 5). Successful completion is defined as the ability to carry a pack weighing 30 or more pounds, at a sustained rate of about 1520 ft/hour for 2 hours. For example: a sub 2.5 hour Mount Si hike with 30lbs.
4. Satisfactorily complete 2 recognized basic climbs, including one rock climb and one glacier climb. ***Credit is granted only for a successful summit and the climbs must be done with different leaders.***
5. Hold a current Wilderness First Aid (WFA) / Mountaineering Oriented First Aid (MOFA) certificate at the date of graduation. NOTE: Several other course options are available to substitute for WFA. Further references to WFA will include these approved substitutions.
6. Satisfactorily complete the Mountaineers' Basic Navigation Course by the date of graduation.
7. Participate in one trail maintenance/conservation activity offered by the Mountaineers or other recognized organizations approved by the Tacoma BRGCC Committee (such as Washington Trails Association, www.WTA.org.) This activity must be completed after the first lecture, but before the date of graduation.
8. Attend an Avalanche Awareness Seminar or hold an AIARE I certificate
9. Acquire the Low Impact Recreation Badge. Here is the link to acquire the badge : <https://www.mountaineers.org/membership/badges/skill-badges/low-impact-recreation>
10. Last but not least, to graduate at this year's potluck in October, students must submit a completed application for graduation 7 days prior to the potluck date. A blank BRGCC graduation application form is in Section I of this manual and also posted under the course materials tab of the course page.

SECOND YEAR STUDENT REQUIREMENT

If you do not complete the course requirements by the graduation date of the first year, you may be eligible to register for the second-year course (paying a small fee).

The second year course website is located at: <https://www.mountaineers.org/about/branches-committees/tacoma-branch/committees/tacoma-climbing-committee/course-templates/basic-climbing-course-second-year/basic-climbing-course-second-year-tacoma-2018>

All second-year students are required to satisfactorily complete a Skills Proficiency Evaluation held in Jan/Feb at the clubhouse, prior to participating in the second year course. Bring your pack and gear as if you were going on a climb. You will be expected to correctly demonstrate ALL essential and critical skills learned in the Basic course, with no instruction. After the evaluation, it will be determined what lectures, field trips, and/or climbs that you need to repeat, if any. All second-year students must complete a conditioner hike with a Tacoma Branch Leader prior to any climbs or prior to any field trips which require a conditioner, i.e. snow camping, crevasse rescue and hard snow.

To graduate, a second-year student must complete all requirements by the graduation date, and submit an application for graduation to the course Records Chair.

RULES, GUIDELINES, AND REQUIREMENTS

ASSIGNED READING

All assigned reading should be **read prior to the lectures and field trips**. Each lecture and field trip has some assigned reading sections out of *Mountaineering - The Freedom of the Hills, 9th edition* as well as supplemental reading materials in this manual. Pre-reading the material will greatly enhance your understanding of the lecture and field trip subjects.

LECTURES

All lectures will be held at the Tacoma Mountaineers Clubhouse located at 2302 N 30th St, Tacoma, WA 98403. The lectures are the academic portion of the Basic Rock & Glacier Climbing Course, and build on the assigned readings. Lectures are interactive and depend on students being prepared to actively participate. **Be on time and make sure you have sign-in.** Most lectures will start promptly at 7 PM. **Please be in your seat at 7 PM ready for the lecture!** It is advised to arrive early so that you can help set up chairs, ask questions, sign in to receive credit, and take care of any administrative matters. After class, we ask that you help put away tables and chairs.

FIELD TRIPS AND FIELD TRIP PREPARATIONS

There are three Field Trip Preparation sessions held on evenings starting **promptly at 6:30 pm**: these sessions are “Fundamentals, Prusiking, Knots and Belays”, “Rock Climbing”, and “Crevasse Rescue”. There are two 2-day (Sat/Sun) weekend field trips: “Snow Overnight” and “Crevasse Rescue/Snow 2. On several field trips students may attend either the Friday, Saturday or Sunday session of a field trip when offered. If you are flexible, please allow those people who can only attend on a given day the opportunity to sign-up first. Starting time varies from field trip to field trip; read the field trip section of this manual and always **be ready to go on time**

ATTENDANCE

This course takes fundamental techniques and builds on them as the course progresses. Certain lectures are prerequisites for corresponding field trips. The consequences of missed lectures and field trips are not being able to participate in subsequent field trips and climbs as indicated below.

CONSEQUENCE OF MISSED LECTURE AND FIELD TRIP

<u>Missed Lecture</u>	<u>Consequence</u>
L1	Cannot participate in field trips
L2	Cannot participate in FT2
L3	Cannot participate in FT3
L4	Cannot participate in FT5
L5	Cannot participate in FT6 & 7
FE	Cannot graduate
<u>Missed Field Trip</u>	<u>Consequence</u>
FTP1	Cannot participate in any subsequent Field Trip
FT1	Must be made up to participate in subsequent Field Trips
FT2	Cannot participate in FT4 (Rock 1) FT5 (Rock 2) FT 6/7 (Crevasse Rescue/Hard Snow)
FT3	Cannot participate in any glacier climb or any climb involving an overnight stay
FT4P	Must be made up to participate in subsequent Field Trips
FT4	Must be made up to participate in subsequent Field Trips
FT5	Cannot participate in any climb in which rock climbing is involved
FTP6	Must be made up to participate in subsequent Field Trips
FT6CR FT7HS	Cannot participate in any Glacier Climbs or any other climbs requiring use of ice axe

KEY

L - Lecture; FE - Final Exam ; FTP - Field Trip Prep; FT - Field Trip; CR - Crevasse Rescue; HS - Hard Snow

COURSE FIELD TRIP “MAKE-UP” POLICIES AND LIMITATIONS

Understanding that emergencies occur, credit for selected Basic Rock & Glacier Climbing Course field trips **may** be obtained by attending the field trips of equivalent content offered by the other Mountaineers branches **if available**.

Make-up Policies and Limitations are:

- **We do not allow substitutions for:** L1, FT Prep #1, FT #2, FT#3, L3, L4, L5, FT #5, FT# 6 or FT#7.
- Field trips— Substitutions are only allowed for **one** field trip: Field Trips #1, Field Trip #4 Prep, Field Trip #4, or FT#6 Prep, if equivalent field trips are available at other branches. **Prior permission** from the Climbing Committee is required to make-up a field trip. In addition, attendance at another branch requires that you obtain **that Branch’s permission prior to attending their field trip** and may require you to attend on the day they specify. Take a copy of the field trip makeup form (see Forms Section in Section I) **AND** a copy of the respective pages from the field trip booklet with you to the other branch's field trip. Then submit the make-up form with the filled out pages from the field trip booklet to the Tacoma Branch BRGCC field trip leader and records chair.
- **Reasons for the above Substitution Policy:**
 1. While all branches must teach specific skills, they do not always lecture on the same topics or teach the same techniques.
 2. Some lectures/field trips are of such importance, or there is no equivalent available, that substitution is not allowed or available for those lectures/field trips.
 3. The Tacoma field trips #2, #3 #5, #6, and #7 are unique field trip, allowing us to evaluate critical skills. It is important enough in the eyes of the Basic Committee that **NO** substitutions are allowed for these field trips.

FINAL EXAM

The final exam for the Basic Course is ALL encompassing. It tests all the material covered in the lectures and all the material out of required readings *Freedom of the Hills* 9th edition and this manual. It is highly encouraged that you take notes during the lectures. A comprehensive review should be done to prepare for the final exam.

BASIC CLIMBS

The climbs are the culmination of the Basic Climbing Course, and the reward for all of the hard work in the lectures and at the field trips. A Basic climb is one which, at its most difficult part, travels over at least class 3 terrain or equivalently exposed snow slopes, but not more than class 5.6 and grade II terrain. Below is important information to understand when considering signing up for climbs.

DESCRIPTIONS AND PREREQUISITE FOR CLIMBS

Conditioner Hike: A conditioner hike is not a basic climb, and can be attempted at any time. It is defined as an outing involving roughly 4,000 feet of elevation gain with at least 2 hours of sustained hiking, carrying 30 or more pounds. Summiting in 2.5 hours or less, is considered a successful/satisfactory conditioner hike. The conditioner hike must be completed with a Tacoma Branch Climb Leader before a Basic Student may participate in Basic Climbs.

What to expect: You will be expected to carry the 10 essential systems, appropriate gear, and have proper boots and clothing. The rest of the weight can be water. Your pack will be weighed at the trailhead. Some conditioners in the early part of the year are on snow. Check with the leader to see if snowshoes are advised or required.

Basic Alpine (BA) A Basic Alpine Climb must travel over a significant amount of class 3 or higher terrain, or equivalently exposed snow slopes. Roped travel on rock is planned to be less than one pitch. Roped travel on crevassed glaciers is planned to be less than one hour. Off-trail travel will require significant use of hands or ice axe for safe travel.

PREREQUISITES: You must satisfactorily complete a Conditioner first. If the Basic Alpine Climb is on snow and does not involve any significant Class 4 or higher rock terrain, you must satisfactorily complete Field Trip 3 (Soft Snow) before the climb. If the Basic Alpine Climb involves climbing class 4 or higher rock, you must satisfactorily complete both Field Trip 3 (Soft Snow) and Field Trips 4 & 5 (Rock 1 & 2) first.

*NOTE: No Basic Alpine climb will count towards graduation, however these climbs can be more difficult and are excellent opportunities to continue conditioning and building experience. In addition, if you choose to go onto Intermediate, you must have 3 or more successful climbs, in which a BA will count.

Rock Climb (BR) A Basic Rock Climb will travel at some point over at least one pitch of class 5 or higher terrain, but not more than four pitches, and not higher difficulty than class 5.6. A rock climb will include at least one rappel, one belay, and the cleaning of protection on at least one rock pitch by the Student.

PREREQUISITES: You must satisfactorily complete a conditioner first. In addition, you must have satisfactorily completed field trips 1, 2, 4 & 5 if an ice axe is not required in the approach. If an ice axe is required in the approach, then you must have also satisfactorily completed Field Trip 3 (Soft Snow).

Glacier Climbs (BG) A Basic Glacier Climb will include at least one hour of roped travel on a crevassed glacier.

PREREQUISITES: You must satisfactorily complete a Conditioner first. In addition, you must have satisfactorily completed field trips 1-3, 6 & 7, before going on a Glacier Climb which does not involve any class 4 or higher rock. If the Glacier Climb involves climbing any class 4 or higher rock then satisfactory completion of field trips 4 and 5 is also required.

GENERAL INFORMATION, GUIDELINES AND SIGNING UP FOR BASIC CLIMBS

- Climbs for course credit must be with different approved climb leaders and be officially listed on the Mountaineers' website. This helps expose students to a variety of climbing styles and be assessed by various leaders.
- Many climb leaders require leader's permission, to sign up for their climb so be sure to obtain the climb leader's permission or you will likely be dropped from the climb.
- Climb leaders may have additional restrictions which they will explain before accepting sign-ups.
- Students should be aware that some leaders may be leading routes with which they are unfamiliar. Leaders will typically inform students prior to the climb when such routes are to be taken. During these climbs, students should be prepared to assist in route finding and other tasks as requested by the leader.
- Climb leaders will hold pre-climb meetings by phone, email, or in person, failure to attend or respond quickly to a pre-climb meeting may result in being dropped from the climb.
- Successful completion of a Basic Climb for the Tacoma Mountaineers, requires that the students summit. The leader's analysis of successful completion will also include the safety, skill, conditioning, and attitude of the Basic Student.
- Students are typically expected to carry ropes and other group gear as assigned by the leader. Refusal to carry such group gear may result in the student not receiving credit for the climb or not being allowed to go at all.

YOUR RESPONSIBILITY PRIOR TO AND ON CLIMBS

Conditioning: Have passed a conditioner hike, and maintain adequate conditioning, to be prepared for the climb. If you are unsure if you have proper conditioning for a climb, as the leader for their expectations.

Equipment: Bring the proper equipment.

*The equipment you need for a particular climb should be covered in a pre-climb discussion or email. If you are unsure, ask and/or just bring it. Extra equipment can always be left in the car.

*When packing, place the equipment you will need first where it is accessible, not at the bottom of your pack.

*If you rent equipment, such as crampons, be sure to have them properly adjusted **prior** to the climb.

Be Courteous: A better time will be had by all.

* **Be On Time or Early-** Nobody wants to wait around in an empty (and often dark) parking lot, wondering if you slept in or are simply not coming! With some leaders, being five minutes late means you missed the climb.

* **Respect Others On The Climb** - Everyone is going to find out that at times they may be a little apprehensive about a part of the climb. Ridicule is not enjoyable and will not be tolerated. Encouragement by others at these times is a great help.

* **Do not hold the group up** - A majority of mountaineers bring cameras on trips; remember, however, not to hold up the party just to take pictures.

* **One Team:** You are responsible for each other -- The climbing party will always stay together (unless there is a need to send for help). Help Out the team! Pay attention to each other, make sure everyone is adequately eating and drinking -- you are also responsible if somebody bonks. There is always group equipment, which should be shared and carried by all. On most trips over snow, steps must be kicked, and all should assist in this process. On glacier/snow overnight climbs, there usually is snow melting, tent platform preparation, and camp preparations, so be ready to help out your teammates.

* **Keep In Mind That All Of Your Trips Are Led By Volunteers** - Without their help, we could not offer you the chance to go on these climbs. You may not always agree with the leader, but on a climb, the leader(s) decisions are final.

* **If Possible, Car-Pool for Climbs** - Remember to reimburse the driver for gas. 12 cents/mile per person is recommended. It is common practice to stop on the return trip for a meal. If you drive and must return quickly after a climb, inform any potential riders that you do not intend to stop on the return trip.

* **If You Must Cancel A Trip** - Cancel at the earliest possible date. Your fellow climbers are counting on you. Timely notification also allows another climber to take your place on the climb and helps avoid the cancellation of climbs.

FUNDAMENTAL SKILLS

Mountaineering is a sport of controlled risk. Both objective hazards, dependent on the mountain environment, and subjective factors, dependent on the mountaineers, must be faced to safely and successfully climb. The objective hazards, such as bad weather, rock fall, and crevassed glaciers, cannot be controlled. However, the subjective qualities of the mountaineer, such as **knowledge, skill,** and judgment, can be developed to overcome or avoid the objective hazards encountered while climbing.

Lectures and field trips are designed to help you gain knowledge and learn the fundamental skills through discussion, demonstration, and practice. Many of these skills must be performed proficiently by you in a test (without help from the instructor) or you will not be permitted to continue in subsequent field trips or climbs. Once a skill test has been passed, **you are expected to perform that skill proficiently in all subsequent course activities and on climbs.**

Practice Makes Perfect: Students will be required to perform fundamental essential and critical skills at each field trip and on climbs. The field trips will include a demonstration of each skill followed by practice and then a test. If you feel that you are not ready for an upcoming skill test, contact your mentor who can answer questions and provide additional guidance. Failing a skill test may seriously impede or stop your progress in the climbing course so it is very important that you be prepared.

ESSENTIAL SKILLS

All skills taught in the Basic Rock & Glacier Climbing Course are considered essential for you and your party to safely and successfully participate in climbs. Below is a list of skills considered essential for alpine climbing.

Conditioning: This is monitored at all course activities. The conditioning skill test is to complete two conditioner hikes. Completion of the first conditioner hike is required before Winter Overnight (FT 3) and satisfactory completion of a second conditioner is required prior to Rock 2 (FT 5). It is your responsibility to get in shape and to stay in shape.

Ten Essential Systems: The 10 E's will be checked at each field trip and must be checked off before FT 2 or participating in climbs, whichever is earlier. You may be excluded from field trips and climbs at leader's discretion if equipment is not appropriate.

Rock Climbing: is practiced at FT 4 Prep and FT4, and then tested at FT 5. You must demonstrate rock climbing proficiency at FT 5. Satisfactory demonstration of rock climbing proficiency is required to participate in rock climbs. It is recommended that you practice on your own or request a mentor for additional assistance prior to FT 5 to ensure that your skills are proficient.

Crevasse Rescue (3:1 (Z) Pulley and 2:1 (C) Pulley): is demonstrated at FT 2 and practiced at FT3 and FT 6 Prep. You must be able to demonstrate crevasse rescue proficiency at FT 6. Crevasse rescue proficiency is required to participate in glacier climbs.

Prusiking: is demonstrated and practiced at FT 1 Prep and FT 1. Tested at FT 2. You must demonstrate prusiking proficiency at FT 2. Prusiking proficiency is required to participate in glacier climbs.

Carabiner-Ice Axe Belay: is demonstrated at FT 1 and practiced at FT 3. You must demonstrate carabiner-ice axe belay proficiency at FT 7. Carabiner-ice axe belay proficiency is required to participate in all climbs using an ice axe.

<i>Essential Skills</i>	FT1P	FT1	FT2	FT3	FT4P	FT4	FT5	FT6P	FT6	FT7
Conditioning			PRAC	PRAC	PRAC	PRAC	REQD		REQD	REQD
10 Essentials		PRAC	PRAC	TEST	REQD	REQD	REQD		REQD	REQD
Rock Climbing					PRAC	PRAC	TEST			
Crevasse Rescue			DEMO	DEMO				PRAC	TEST	
Prusiking	PRAC	PRAC	TEST						PRAC	
Carabiner-Ice Axe Belay			PRAC	PRAC						TEST

CRITICAL SKILLS

A few of the essential skills have been identified as not only essential to successful climbing but critical to safety. Critical skills, if not performed properly, present an immediate risk of serious injury or death to you and/or your climbing partner(s). Particular attention will be paid to critical skills during field trips and climbs.

Knots: Knots are demonstrated at FT 1 Prep and all required knots are practiced at FT 1 and FT 2. You must complete the knot test prior to FT 4 (by end of FT 3) for participation in FT 4. Knot tying proficiency is required to participate in all subsequent field trips, and rock and glacier climbs. It is recommended that you practice on your own or request a mentor for additional assistance prior to FT 3 to ensure that your skills are proficient.

Belays (Münter Hitch and Device): are demonstrated at FT 1 Prep and practiced at FT 1. You must demonstrate belaying proficiency with weight drops at FT 2. Belaying proficiency is required to participate in FT 4, FT 5, and rock climbs. If you encounter difficulty at FT 1, it is recommended that you practice on your own or request a mentor for additional assistance prior to FT 2 to ensure that your skills are proficient.

Rappels (Carabiner Brake and Extended Device): are demonstrated and practiced at FT 4. You must demonstrate rappelling proficiency at FT 5. Rappelling proficiency is required to participate in rock climbs. If you encounter difficulty at FT 4, it is recommended that you request a mentor for additional assistance prior to FT 5 to ensure that your skills are proficient.

Ice Axe Arrests (Hard Snow): are practiced as well as tested on hard snow at FT3 and FT 6. Proficiency in ice axe arrest on soft snow is tested at FT 3, and is required to participate in FT 6 and all climbs where ice axe use is required. Ice axe arrest proficiency on hard snow is required to participate in Basic rock, glacier and alpine climbs and scrambles where ice axe use is required following FT 6.

Critical Skills	FT1P	FT1	FT2	FT3	FT4P	FT4	FT5	FT6P	FT6	FT7
Knots	PRAC	PRAC	REQD	TEST	REQD	REQD	REQD	REQD	REQD	REQD
Belays	PRAC	PRAC	TEST		REQD	REQD	REQD		REQD	REQD
Rappels						PRAC	TEST			
Ice Axe Arrests				REQD(S)						TEST(h)

PRAC Student Practice

REQD Student Proficiency Required

TEST Student Proficiency Test

REQD(S) Student Proficiency on Soft Snow Required

TEST (h) Student Proficiency Test on Hard Snow

FIELD TRIP SKILL EVALUATION

GRADE DEFINITIONS FOR SKILLS DEMONSTRATED ON FIELD TRIPS

- Three-Point Scale for demonstrating acquisition of skills during practice at field trips

S Safe – After instruction is given, the student is able to demonstrate the skill with minimal or no prompting from the instructor.

QS Questionable Safe – After instruction is given, the student is able to demonstrate the skill but requires moderate prompting from instructor.

NS Not Safe – After instruction is given, the student is not able to demonstrate the skill, even with major prompting from instructor.

A grade of **NS** on the three point skill evaluation scale does not prevent student from continuing in the course. However, the student must master the skill before being **tested** at subsequent field trips. In addition to self-study and practice, the student should contact their mentor for additional instruction if needed.

- Two-Point Scale for Testing Critical and Essential Skills

S Safe – a student is able to demonstrate the skill with minimal or no prompting from the instructor.

NS Not Safe – The student is not able to demonstrate the skill without prompting from the instructor.

A student receiving a grade of **NS** on a **skills test** cannot participate in any further field trips or climbs requiring that skill. The student must contact the Critical Skills Chair for the course and his/her mentor to make a plan for corrective action which will include a requirement for the student to be able to demonstrate the skill with a **Safe** evaluation before continuing in the course.

INSTRUCTOR SIGN-OFFS

Some activities on field trips require your preparation and participation but do not test your abilities. In such instances an “S” evaluation will represent sufficient preparation and participation, and a “NS” evaluation will represent NOT sufficient preparation and participation.

CORRECTIVE ACTION: NS Grades

There are two ways to get a NS Grade:

1. You did not demonstrate proficiency of a Critical or Essential skill during a skills test at a field trip.
2. A field trip instructor or leader finds you have regressed, and are deficient in an Essential or Critical Skill at a later field trip, or even worse, on a climb.

What happens now: The instructor or field trip leader will let you know, and if time allow will show you what you are doing wrong. They will then contact the Critical Skills Chair and your mentor to tell them what they saw. At this time you will not be permitted to continue with the course or on climbs until the deficiency is corrected. It is your responsibility to correct the skill deficiencies. It is advised to contact your mentor as soon as possible, to work out a plan to correct the deficiency. When your mentor judges that you have mastered the skill, he/she will notify the Critical Skills Chair. The Critical Skills Chair will then arrange for retesting as appropriate. If you pass the retest (a rating of S=Safe) the Critical Skills Chair will note skill proficiency has been met in your field trip book and notify the course records keeper. You should then confirm that you have been cleared to continue with the course or climbs before attempting to participate in subsequent activities.

KNOTS

Knot-tying is an inherent part of roped climbing, and you and your partner’s safety depending on the ability to tie appropriate knots correctly and to recognize correctly tied knots. You will be tested on all the below knots at all field trips. Your knots will be inspected for good dressing, and you will be expected to be able to tell how and why each of the knots is used. **PRACTICE! PRACTICE! PRACTICE!**

The following knots are required for the Tacoma Basic Rock & Glacier Climbing Course.

- Girth hitch
- Water knot
- Figure 8 loop (Figure 8 on a bight)
- Rewoven Figure 8 (Figure 8 Follow Through)
- Single Bowline (Bowline)
- Double Fisherman’s knot (Double Fisherman’s bend; Grapevine knot)
- Prusik knot
- Clove hitch
- Münter hitch
- Bowline on a coil
- Alpine Butterfly
- Bachmann knot
- Mule Knot
- Flat Overhand Bend

Refer to the Knots section of Chapter 9 in *The Freedom of the Hills, 9th edition*. You can also find animated illustrations of most of these knots at www.animatedknots.com.

CLOTHING AND EQUIPMENT

We encourage you to discuss equipment and clothing with fellow students and instructors, study blogs and websites, ask store representatives, and shop around before selecting your own gear. An item that is just right for someone else may be a poor choice for you. Remember, there is no such thing as bad weather, its having bad/inadequate gear that is the problem.

CLOTHING

No single garment or fabric is ideal for all climbers or all situations. You can optimize the effectiveness of your clothing system by applying a layering system. Layering allows for easy adjustments to fluctuating backcountry conditions, and your own internal heat and moisture management.

The following items will be needed for field trips and on climbs. Keep in mind used clothing and gear works fine and saves money. **Cotton clothing is not appropriate and is not permitted on climbs or field trips.** Polypropylene, polar fleece, and/or wool clothing must be worn at all other times.

BASE LAYER

- ② **Long underwear** – This layer should allow perspiration to pass through and evaporate without absorbing the moisture, and keeping your skin dry (wicking action). The garments will come in three densities: light, medium, and heavy. Recommend: medium density garment in a dark color. Fabrics include polypropylene (Poly Pro®), treated polyester, wool, or wool blend fabrics. This layer includes:
 - ❖ A Top – Recommend: Long sleeves with a zipper T neck. This top provides flexibility to make adjustment for ventilation. During warmer months a short sleeve micro wool or synthetic top is appropriate. During winter months having an extra top to change into at the summit can be beneficial to stave off the chill from a wet layer of clothing.
 - ❖ Bottoms – Recommend: full length legs.
- ② **Socks** – Three types:
 - Liner Socks – A thin pair of socks that wick moisture from your skin. They protect and prevent blisters. Polypro is generally used.
 - Insulating Socks – Wool or synthetics fiber that retain insulation value when wet.

MID/INSULATING LAYER

This layer will keep its loft (air pockets) when wet. Many of the polyesters come in different densities – normally rated as 100, 200, or 300 pile. The larger the number the more dense (warmer) the garment. A good general-purpose garment has a rating of 200. Fabrics include wool and/or polyester pile (fleece), synthetics like Primaloft, or down. During the warm summer months you likely will not wear this layer, but carry a light-weight version in your pack for emergencies and on overnight trips.

- ② **Wool or Synthetic Pants** – Required for all snow field trips and recommended for all field trips. Side leg zippers are strongly recommended because you can conveniently take the pants on or off without removing your boots. If you are wearing these under shell pants, light or mid-weight underwear is often adequate for day trips.
- ② **Wool or Synthetic Shirts/ Sweaters/ Jackets** – Required for all snow field trips and recommended for all field trips. Surplus stores, Goodwill, or Salvation Army are good places to find good quality inexpensive items.
- ② **Technical Pants** – A pant for many seasons. These are an all-around weather and abrasion resistant pant often made of Schoeller or similar product. They can be light to heavy weight and offer the most versatility transitioning between spring-summer-fall outings. They are generally worn alone but long underwear can be added for warmth as needed.

SHELL LAYER

- ② **Rain/Wind Gear** – Fabrics may include Gore-Tex®, eVent and other proprietary products. The performance of the waterproofness, breathability, weight and cost has to do with the fabric used, and the layers and design in how the garment was built.
 - ❖ Rain Jacket: Ideally have large pockets situated above the pack hip belt, ‘pit zips’ (under the arm pits), and a helmet compatible hood.
 - ❖ Pants, bibs (Bottom): Pants with side leg zippers that allow them to be put on over boots are required. Full leg zippers allow pants to be put on over boots and crampons very quickly, which is important when traveling in the mountains. Please talk with leaders about the significant advantages of having leg zippers; it’s very important!! Bibs are generally too warm for most climbs.
 - ❖ Soft Shells: Comfortable and useful for moderate weather but are not truly waterproof and are generally heavier than hard-shell raingear. Some are insulated. You should still own a truly waterproof shell, with a hood.

ADDITIONAL CLOTHING

- ② **Head Cover** – Recommend that this be able to fit under helmet.
 - ❖ Insulating cap: One that will surround your head and/or neck. Heat loss from the head and neck can be dramatic, up to 80 % of the total heat loss from the body.
 - ❖ Sun Protection cap: These caps can include baseball cap or bandannas. Can be cotton.

- ☐ **Hand wear: Gloves/Mittens** – Gloves provide greater dexterity. Mittens tend to be warmer because fingers stay together. We recommend a layering system of a combinations of gloves as a base layer and mittens as a warm protective layer. There are 3 layers of hand protection:
- ❖ Liner gloves – A thinner pair of gloves that wick moisture from your skin. They protect hands from the cold head of an ice axe; fabrics are the same as those for base layers.
 - ❖ Insulating gloves/mittens– Wool or synthetics fiber that retain insulation value when wet. General-purpose gloves.
 - ❖ Shell gloves/mittens – Waterproof and windproof.

EQUIPMENT

Caution: While it is OK to buy inexpensive equipment (e.g., sale or used items, or items without “bells and whistles”), avoid cheap equipment. It will fail at the worst possible time! It is also important that you purchase new items that are critical to your safety (harnesses, webbing) to avoid costly mistakes. Ask experienced members of the club for advice and recommendations on equipment. It may be prudent to spend a little more on the “right” piece of equipment rather than spending twice to replace the “wrong” piece.

- ☐ **Mountaineering Boots** –Do not economize here. Boots will be one of your most important equipment purchases. Make sure to go to the store, get **both feet measured**, and find a properly fit boot (60% of the populations has different sized feet). Plan to spend some time wearing the boots around the store to ensure a good fit. It is also highly suggested to do your fit at the end of the day when your feet can be warm and swollen. Buy your boots early and break them in soon. **HIKING BOOTS CANNOT BE USED FOR THIS CLASS!!**
- ☐ **Gaiters** – You should be able to put them on without removing your boots. Front and side closing are the easiest; knee high gaiters are preferred over ankle high gaiters.
- ☐ **Pack** –Look for a well-fitting and comfortable pack. Have your torso measured and pack fit by a knowledgeable person to ensure a comfortable fit for you.
- You will need a day pack on all the field trips and one-day climbs. A day pack should be 40-50 liters. A pack for two-three days should be 50-70 liters (depending on how compact and lightweight your gear is); and be capable of carrying 35-50 pounds. Instead of two separate packs you may use an overnight pack, that can be compressed for field trips and day climbs.
 - External frame packs are not suitable for climbing because they increase the difficulty of self-arresting a fall on snow and the tendency for them to hang up on branches and rock edges.
- ☐ **Helmet** –An UIAA approved climbing helmet is required for all field trips, rock and glacier climbs.
- ☐ **Ice Axe** – You will want an ice axe that is generally used for glacier travel, which tends to have a uniform taper from spike to shaft, and a straight shaft. Size: You will need 2-3 inches of clearance from the end of the spike to the top of the boot, while standing in an upright position (while holding onto the axe between the adze and the spike). However, many lower end alpinist prefer a slightly longer ice axe.
- ☐ **Crampons** – A 10 or 12-point set of general or technical mountaineers crampons are required for the course and glacier climbs and where very hard snow or ice is involved. Make sure crampons properly fit your boots.
- ☐ **Seat Harness:** Must be UIAA approved. Gear loops are desirable for carrying carabiners and other gear. Make sure there are no pinches while hanging and walking around in it. Waist belt strap must have 2 to 3 inches sticking out after threaded through the buckle following the manufacturers’ recommendations. Study the instructions provided by the manufacturers and always follow their recommendation for using the harness.
- ☐ **Belay Device:** The only approved belay devices for the basic course are the tubular type (Black Diamond ATC, ATC-XP, Petzl Reverso, etc.). **The “Figure 8” and “Petzl Grigri” devices are NOT acceptable for this course.**
- ☐ **Large Pear-Shaped Locking Carabiner:** Either screw lock or auto-locking are acceptable.

ADDITIONAL EQUIPMENT CONSIDERATIONS

- ☐ **Sleeping Bag:** Recommended temperature rating 32°F or less for summer conditions. 15°F or less for winter/snow camping
- ☐ **Eleven’s:** Although these items are not required as part of the “Ten Essential Systems,” many consider them on par with the ten essentials:
- **Insect repellent:** try it and your sunscreen at home to be sure you are not allergic to them.
 - **Signal device:** audible (whistle) and visible (signal mirror and flashlight).
 - **Nylon cord:** 25ft or longer 3/32" or 1/8" nylon cord. Can be used for: equipment repair, hanging food, rigging tarp for shelter.

- **Garbage bag or trash compactor (30 gal or larger):** For waterproofing, carrying garbage out, and sometimes glissading, rain cover, emergency shelter.
 - **Toilet Paper:** in waterproof zip lock type bags.
 - **Duct Tape** – wrap a few feet around your ice axe, trekking poles, or water bottle.
 - **Sit Pad** - Small piece of water resistant foam or self-inflated pad to reduce conductive heat loss. May also be useful for splinting
 - **“Blue Bag” System:** A double bag system for use where feces cannot be properly buried, such as snow or rock, or in areas of high human impact.
- ☐ **Group Gear:** On every climb, certain gear is taken along in case of emergency situations. This gear is distributed to all party members. The climb leader will determine the minimum requirements for “group gear” on a given trip:
- * Stove/fuel/pot
 - * Ground insulation
 - * Bivy sack
 - * Sleeping bag or sufficient extra clothing (within party)
 - * Water Filter
 - * Shovel

EQUIPMENT & CLOTHING: NOTES ON EXPENSES

Climbing requires a fair amount of equipment, and if you are not already a well-equipped hiker, it can be expensive to outfit yourself. If you have the resources, and want all new, or top-of-the-line, gear – it would be easy to spend \$1,000 or more. Most of us don't fall into that category. Fortunately, there are plenty of options available, if you are on a tight budget.

- ☐ **USE THINGS YOU ALREADY HAVE** – Most everyone has a few items at home that are perfectly adequate – wool clothing, first aid supplies, hats, mittens, sunglasses, etc.
- ☐ **PURCHASE USED EQUIPMENT** – There are several second-hand sporting and outdoor shops in the area. Thrift stores, surplus stores, and even garage sales are also great places to check.
- ☐ **BE AN INFORMED BUYER** – It's easy to spend more money than necessary. Talk to the Basic Rock & Glacier Climbing Course Committee members and other experienced leaders, instructors, or climbers to gather as much information as you can. Remember, though; take no one's advice as absolute. *It's ultimately YOUR choice to determine what's best for you.*
- ☐ **LOOK FOR DEALS ONLINE**

EQUIPMENT NOTE: FOR FIELD TRIP 1 PREP

Have your webbing and perlon cut at the store when you buy it! It is a good idea to use different colored webbing for different sized slings (short, single, doubles, personal anchor, chest harness). The different colors allow you to easily recognize the length and what the sling is used for.

- Total of 46 ft. of 1-inch tubular webbing for chest harness and slings cut to the following length
 - (1) 10 foot – double sling
 - (1) 4 foot – short sling
 - (1) 11 foot – personal anchor
 - (2) 6 feet – single slings
 - (1) 9 foot – chest harness sling
- Total of 49 feet of 5 or 6 mm Perlon cut to the following lengths:
 - (2) 4 foot sections of perlon for Tie-off loops
 - 8 feet of perlon for pack sling (or 6 feet of 1-in tubular webbing-- not included in 46 ft. shown above)
 - 25 feet of perlon for Texas Prusiks (DO NOT cut) – Make this a different color than other perlon
 - 3 feet of perlon to practice tying knots
 - 5 feet of perlon for Auto block backup

EQUIPMENT MATRIX

The below equipment matrix identifies equipment that will be needed at each field trip. NOTE: MODIFICATIONS TO THIS LIST MAY BE MADE IN CLASS.

Field Trip Prep and Field Trip

Required Equipment	1P	1	2	3	4P	4	5	6P	6C R	6H S
Double Sling (1" tubular webbing)	S	X	X	X			X	X	X	X
Two Singles Sling (1" tubular webbing)	S	X	X	X			X	X	X	X
Short Sling(1" tubular webbing)	S		X	X						X
Personal anchor (1" tubular webbing)			S	X	X	X	X	X	X	X
Chest harness (1" tubular webbing)	S	X	X	X				X	X	X
Two Tie-off slings (perlon)	S	X	X	X	X	X	X	X	X	X
Pack sling (perlon OR webbing)	S	X	X	X				X	X	X
Auto block (perlon)						S	X			
Texas Prusiks	C	X	X	X				X	X	X
Locking pear-shaped carabiner	X	X	X	X	X	X	X	X	X	X
Seat harness	X	X	X	X	X	X	X	X	X	X
Ten Essential Systems (including map)		X	X	X	X	X	X		X	X
5 Standard carabiners		X	X	X	X	X	X	X	X	X
4 Locking carabiners		X	X	X	X	X	X	X	X	X
Belay gloves		X	X	X	X	X	X		X	
Pack (50-65 liter)		D	D	X		D	D	D	X	X
Mountaineering boots		X	X	X	X	X	X		X	X
Approved belay device		X	X	X	X	X	X		X	X
Climbing helmet	X	X	X	X	X	X	X		X	X
Chock pick							X			
Ice axe with leash (cover adze w/ duct tape)			X	X				X	X	X
Rescue pulley				X				X	X	X
Tent for 2-3 (3-season w/ snow stakes)				X						
Snow shovel				T					X	R
Sleeping bag (warm to 30°F or less, check weather)				X						
Sleeping pad				X						
Stove, fuel, & pot				T						
Aluminum picket, 24" in length				X				X	X	X
Personal items (utensils, cup, hand warmers)				X						
10 or 12-point crampons (check fit on YOUR boots)				X		X			X	X
Appropriate clothing layers (check the weather)	X	X	X	X	X	X	X	X	X	X
Gaiters				X					X	X
Snowshoes				X					R	R
Blue Bag System				X					R	R
Lunch		X	X	X		X	X		X	X
Food for 2 days				X						

Legend:

C = Cut and tied at Field Trip 1 Prep (do NOT cut beforehand!)

D = Day pack (~2500 in³) acceptable alternative

R = Recommended, but optional for this field trip

S= Sized/Tied at Field Trip

T = per Tent

X = Required

Field Trip Prep and Field Trip

Optional Equipment	1P	1	2	3	4P	4	5	6P	6CR	6HS
Sit pad		X	X	X	X	X	X	X	X	X
Bivy sack and/or space blanket				X					X	X
Toilet Paper				X					X	X

THE TEN ESSENTIAL SYSTEMS

A list of the Ten Essentials was first developed by climbers in the 1930s, and is still utilized in order to attempt to prepare individuals to survive the unexpected. *You are required to carry your 10 E's on all field trips and climbs.*

- | | |
|--------------------------------|----------------------------|
| 1. Navigation | 6. Fire |
| 2. Sun protection | 7. Repair kit (knife) |
| 3. Insulation (extra clothing) | 8. Nutrition (extra food) |
| 4. Illumination (head lamp) | 9. Hydration (extra water) |
| 5. First-aid supplies | 10. Emergency shelter |

10 E's RECOMMENDATIONS AND IMPORTANT NOTES:

- **NAVIGATION**

Compass Requirements - The Mountaineers Navigation Course has compass requirements (adjustable declination, sighting mirror, etc.) so be sure to check with that program when purchasing your compass.

Altimeter and GPS - not required as a basic student but highly recommended

- **ILLUMINATION**

Headlamp –make sure it water resistant and the switch that cannot be easily turned on (accidentally) in your pack. Recommended: 90 lumens or more

Batteries – are required as part of the Tacoma Branch 10E's

- **FIRST AID SUPPLIES**

First Aid Kit – An adequately prepared mountaineering oriented first aid kit must be carried on every trip.

Note: If you are injured, the rescuer will use your first aid kit to administer first aid on you.

- **FIRE - Practice with your fire starter system outside on a rainy day BEFORE you go into the outdoors.**

Matches – An emergency supply of waterproof matches stored in a waterproof container. Carry a striker in the waterproof container as well. *A lighter is not an acceptable substitute for emergency matches.*

Fire Starter –Common fire starters not included in FOH: a small candle (table type, not birthday) or fuel tablets. It should be noted that fuel tablets (such as Hexamine) produce toxic fumes.

- **REPAIR KIT & TOOLS:** Many useful items can make up a repair kit such as duct tape, webbing, safety pins, etc. At a minimum you must have a **knife** to satisfy this requirement. Recommendations: A stainless steel folding blade of 2 to 4 inches of length

MOUNTAINEERS' CLIMBING CODE

The climbing code is a standard of judgment based on many years of mountaineering experience. In risky or doubtful situations, following this climbing code increases the margin for safety and success. Follow it religiously. It is so important we are also listing it here in the manual for you.

1. A climbing party of three is the minimum, unless adequate pre-arranged support is available. On glaciers, a minimum of two rope teams is recommended.
2. Rope on all exposed places and for all glacier travel. Anchor all belays.
3. Keep the party together, and obey the leader or majority rules.
4. Never climb beyond your ability and knowledge.
5. Never let judgment be overruled by desire when choosing a route or turning back.
6. Carry at all times the clothing, food, and equipment necessary.
7. Leave the trip schedule with a responsible person.
8. Follow the precepts of sound mountaineering as set forth in textbooks of recognized merit.
9. Behave at all times in a manner that will not reflect unfavorably upon mountaineering.

CONDITIONING

Mountaineering can be a very rewarding experience. However, your desire to climb mountains and scramble in the high country does not automatically give you the aerobic capacity or psychology you need to be a capable member of a climbing party. For lack of physical or psychological conditioning, numerous destinations are not reached and the trip becomes an ordeal for all involved.

PHYSICAL CONDITIONING

The most important piece of equipment you have is your body. Muscles and bones are created for work and will increase in capacity to handle the load required. This premise is the basis for body conditioning and lack thereof can affect the individual and party to the point of considerable hazard. Tired climbers slow group progress and become increasingly faulty in movement and judgment. Make sure your conditioning program will allow you to participate in all activities **comfortably and safely**.

Are You In Acceptable “Condition”?

If you are in acceptable condition for mountaineering, you can ascend non-technical terrain at a rate of about a thousand feet per hour with a 35 - 40 pound pack and maintain that pace for three or more hours.

If You Are Not In “Condition”

- * You are out of breath and fatigued after a short period of time.
- * More lactic acid accumulates in your muscles from exertion - tending to produce cramps and stiffness.
- * When you force yourself to reach the summit, you do so at great cost to your body’s economy.
- * You have no reserves. You recuperate slowly, and are still tired the next day
- * When you push yourself to exhaustion, you frequently stumble and become too tired to think clearly.
- * You are/can become a liability to the party.

If You Are In “Condition”

- * You can keep going more comfortably and for a longer period of time.
- * There is less lactic acid in your muscles from exertion and consequently little or no stiffness or soreness.
- * You have the ability to push yourself further with safety.
- * You have a real reserve available for an emergency, and recuperate faster after an exhausting effort.
- * Your body functions automatically and you can concentrate on route finding and technical skills.
- * You are an asset to the party and can enjoy yourself.

PHYSIOLOGICAL CONDITIONING

An often overlooked component of mountaineering for the beginning mountaineer, is psychological conditioning. Many new mountaineers do not fully understand what they are getting into. In addition to the obvious, physical and financial expenditures, the Basic Climbing Course makes demands on one’s life in the psychological arena as well. Some of these factors include time commitment, exposure to new and potentially anxiety provoking experiences, and effects of intensive learning.

TIME

This course will affect your home life, friends, family, and pets. Time estimates from graduates of last year’s basic course ranged from 500 to 800 hours to complete the course within one year. The commitments in the rest of your life will feel the effects of your absence and the attention you are devoting to this project. Providing them with a thorough account of the commitment you are undertaking will do two things: (1) Give them the information they need to understand how this will affect them, and (2) help garner their support — from which you will benefit!

EMOTIONAL REACTIONS

Mountaineering will expose you to potentially anxiety provoking experiences, from glaciers and crevasses, to sheer rock faces, to long hikes out by headlamps in the dark, when you are bone tired. Make an agreement with yourself to challenge yourself at a pace that you can tolerate and sustain. Comparison of your internal experience with someone else’s external appearance is usually of limited value. Teamwork helps keep things in perspective. Mountaineering is a two-way experience - at each end of the rope.

COGNITIVE DEMANDS

Finally, the effects of intensive learning (often under adverse conditions) are easy to overlook. For many of the students in the basic course, you are learning a great deal of new information in a short amount of time. Take care of yourself by getting adequate rest, exercise, and pacing yourself in the activities that fulfill the course requirements. Solid psychological conditioning will better enable you to incorporate new information in the course, ultimately make safe, sound decisions in the mountains.

Give yourself credit. It’s a tough course. It gets easier (and more fun) the longer you do it.

LECTURE 1 KEY POINTS, OBJECTIVES AND MENTOR MOMENT

Key points

- Critical skills and essential skills: know what they are and why something is considered a critical skill versus an essential skill.
- Safety--contributing factors to mountaineering accidents; rock and glacier climbing specific hazards; prevent incidents; do safety check of anchor, yourself, and your partner
- Climbing Code -- **Memorize** the Climbing Code
- 10 Essentials – know what they are and how to use them

“MENTOR MOMENT”

Students often ask why there are so many “rules” involved with the course. They often refer to it as being too “militant”. The course is physically, mentally, and emotionally demanding. It is designed to provide you with the basic information and skills to become a competent and safe beginning Mountaineer. Standards must exist to ensure the safety of all the participants. For the Basic Rock & Glacier Climbing Course (BRGCC) committee and the vast number of volunteers to do their job, students will be expected to meet these standards. In addition, if you mess up, you or somebody else could get hurt and at the very worst, die.

Field Trip Survival:

- Read all field trips information prior to the field trip – the instructors will know if you didn’t. It is easy to tell who didn’t read vs who didn’t understand.
- Be on time! This means be dressed, and with all appropriate gear, at the designated start time.
- No cotton clothing on field trips, except underwear or hats. The only exception will be Field Trip 1 Prep at the clubhouse – Substantial **boots** are required at Field Trip 1 Prep. No tennis shoes.
- Bring a change of clothes for the drive home. You can count on it raining on FTs more often than not.
- Bring plenty of snacks and a thermos of something hot. Eat and drink often, there will be no designated lunch breaks. Get in the habit of drinking water frequently during FTs.
- Restrooms: Leavenworth FT 5 will have a “Port-a-Potty” and the Tacoma clubhouse has restrooms. All snow FT’s will have a designated area for the group and use the blue bag system.
- Ask questions when you don’t understand. Try to be specific about what you don’t understand. Ask multiple instructors how they do things, different instructors teach differently, one person’s way of remembering or practicing might not connect with you. There is a good chance that somebody else’s does.
- If you finish early, practice other skills and/or help other students with skills. If you can teach it, you obviously know it.

Getting Ready-Taking Responsibility

- **Organize:** If you haven’t done so already get a calendar and plot out all the course lectures, field trips and other important dates. Compare the dates to your work schedule and family commitments. Look for potential problems and start planning what you will do.
- **Get Fit for Climbing:** Get yourself ready by physically conditioning- construct a personal fitness plan and implement it. There is nothing like getting out and doing the activity. Take advantage of the many day hikes and scramble trips the club offers. Get out with other students. Ask any leaders/instructor what they do to train.
- **Prepare & Practice:** Review the suggested material prior to field trips and lectures. Practice prior to and after the field trip. Get a partner and work together. If you are having problems, contact your mentor.

Preparing for Field Trip One Prep and Field Trip One

- Study & learn how to tie the required knots and explain their use.
- Explain how to care for a rope. Demonstrate how to properly coil a rope.
- Describe how to properly clip in a carabiner. Explain how to care for carabiners. Explain why you “oppose” the gates when substituting 2 carabiners for a locking carabiner.
- Describe a “Basic Belay Set-up” for all belay methods. Name several methods used to produce friction in the belay system. Describe a good belay stance. What is the PBUS method of belay? Be able to verbalize the correct climbing signals.
- Describe what a SERENE anchor is. Where is the master/power point of an anchor? When do you use your PA?
- When would you need to use leader tie-off and belay escape? What are the steps of leader tie-off and belay escape?
- When would you need to prusik? Describe how to ascend and descend using prusiks? When would you want to drop your pack?
- What are the 10 essentials?

DATES TO REMEMBER!

- The 10 Essential Systems, Belaying, Prusiking, and Leader-Tie off with escape must be passed by the end of Field Trip 2.
- Practice your knots and attempt to pass the Knot Test as early in the course as possible. The Knot Test must be passed by the end of Field Trip 3.
- Two conditioners must be passed; One prior to FT 3 and the second prior to FT 5 or any climbs. Sign up for these ASAP.
- Make sure to have a helmet by Field Trip 1.
- Sign up for the Navigation and WFA courses early. They fill up, and students miss out on graduating every year.