The Mountaineers Annual Safety Report for 2018 - 2021

January 2022

Prepared by the Mountaineers Safety Committee:

2021 Safety Officers

First Name	Last Name	Safety Officers
James	Pierson	Bellingham
Barry	Hershly	Everett
Paul	Thomsen	Foothills
Mike	Kretzler	Global Adventures
Nathan	Starr	Kitsap
Mike	McIntosh	Olympia
Michael	Riley	Olympia (Elect)
Dan	Greenfield	Seattle
Steven	Knowles	Tacoma
Весса	Polglase	Youth, Staff

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EXECUTIVE SUMMARY

Annual safety reports increase awareness of risks associated with Mountaineers activities by providing:

- historical incident trends
- incident details (with names and second person pronouns removed in support of anonymity)
- observations drawn from incident trends and details
- recommendations for improvements in activity training and trip preparation/leadership
- with the intention of reducing the probability and severity of incidents

Increasing awareness of risks associated with Mountaineers activities and then learning and mastering skills to avoid or minimize exposure to such risks can help reduce incident probability and mitigate incident severity. Maintaining a balance between risk, knowledge, and capability increases the likelihood of avoiding serious incidents, injuries, and fatalities. The number-one priority for Mountaineers members should always be for everyone to return home alive and well, physically as well as emotionally.

Keeping risk management consciously in mind can, at times, run counter to a natural inclination to discount risk (the weather doesn't look that bad) or take shortcuts (no need for a seatbelt for this short trip to the store) to get going, save time, and reduce effort. Most of the time, when people make short-sighted decisions, they pass through the resulting increased risk unscathed. Occasionally, they experience "luck" when a back-up kicks in (for instance, bringing enough rain gear) or when common safety equipment saves the day (thank goodness for that air bag). Near misses and minor injuries are wake-up calls that alert us to reexamine decision making around exposure to risk and to employ appropriate capabilities.

Over time, unnecessary risk exposure increases the odds of serious incidents, and in rare instances, people win the wrong kind of lottery; the risk they have exposed themselves to is not addressed by any preparation or inherent capability, and the worst imaginable incident occurs. Risks associated with Mountaineers courses and activities can be addressed through deploying sufficient capabilities, and the majority of incidents can be avoided with a straightforward focus on managing risks. Managing risk by following sound practices leads to more frequently successful adventures.

In some instances, using sufficient capabilities to manage risk may take more time, gear, knowledge, experience, or conditioning. Appropriately managing risk may mean deciding to turn around and attempting to achieve an objective another day. But in the long term, those who consistently manage risk can expect to live longer and enjoy more years of getting home safe, getting home friends, and getting to the objective --- in that order.

The strategy for managing risk is straightforward to describe but a bit harder to consistently put into practice. First, we need to recognize the hazards associated with the adventure; then address those hazards when planning and preparing for the activity. In the midst of the adventure, the strategy is to be present and mindful of immediate as well as upcoming hazards, avoiding them when possible and using the right capabilities to mitigate the risk of the hazards' negative consequences, while enjoying the thrill of the positive experience.

Few activities engage people as physically, mentally, and emotionally as do Mountaineers adventures. Those with ample experience seek to identify, prepare for, minimize exposure to, and mitigate the risk associated with hazards prior to their activities. During an adventure, they remain vigilant in recognizing unanticipated hazards and make decisions to avoid the hazards or mitigate exposure to them. Afterward, they share with their community the knowledge gained during the adventure by submitting incident reports (including safety concerns or near misses, as well as reports on incidents resulting in injury) so that others can incorporate lessons learned into their adventure preparation.

The annual safety report is intended to encapsulate the wisdom shared by Mountaineers members, volunteers, instructors, and leaders.

INTRODUCTION

Committee Purpose

The purposes of the Safety Committee are to:

- ensure that Mountaineers activities have access to, adopt, and follow current safety standards.
- provide resources for education and training of trip leaders and course instructors.
- perform collection and analysis of information on safety incidents, accidents, and near misses.
- Documents, maintains, and distributes throughout the organization relevant incident trend analysis with recommendations on best path forward to address incident trends and recommendations from critical incident response reports.

The Safety Committee reports to the Branch Leadership Committee (BLC) and enhances the organizational safety culture and structure such that The Mountaineers sufficiently manages risk inherent in the activities we participate in and is recognized as a national leader in outdoor activity safety.

Responsibilities

The Safety Committee accomplishes the following:

- prepares incident reporting and shares with appropriate organization leadership.
- recommendations to the BLC, Risk Management Committee (RMC), and activity summit groups responses to incident trends and/or critical incident report recommendations. BLC and activity summits are responsible to approve or reject the recommendations, as well as ensure that approved recommendations are carried out.
- collects, develops, and distributes safety-related education and knowledge pertinent to each activity.
- helps standardize and educate safety concepts and awareness at the branch and activity levels.
- assists in the development of standards for leader qualification and continuing education.
- onboards, trains, enables, and supports branch Safety Officers.
- stimulates creation, support, and ongoing maintenance of Safety committees within each Branch.
- sets expectations and partners with branch leadership teams to ensure support of branch Safety committee accountabilities.

Safety committee goals for 2021 included:

- Encourage better understanding of when and how to submit incident reports
- Encourage adding tips and considerations to route places for leader consideration when trip planning
- Collect incident information in a systematic manner
- Share incident trend information in a systematic format
- Communicate summaries of incidents to members
- Facilitate discussion of incidents and safety measures among members

We track incidents as Critical, Major, Significant, or Minor:

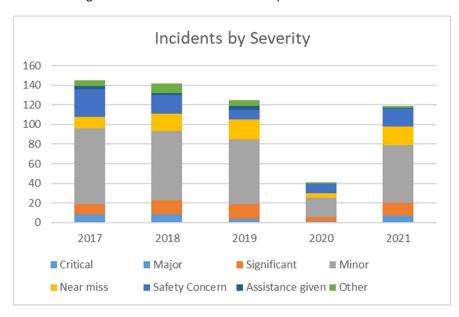
- Critical incidents are those where a fatality or life-changing accident occurred.
- Major incidents are those that require emergency medical attention or where 911 or Search and Rescue is called and a search is performed.
- Significant incidents are those that require non-emergency medical attention or where 911 or Search and Rescue is called but no search is performed.
- Minor incidents do not involve medical attention or 911/Search and Rescue calls.
- Party Assists are incidents where a Mountaineer group assisted a non-Mountaineer party in some way.
- Near Misses Learned are situations where the occurrence of an incident was averted: no injuries, no outside agency
 needed, potential difficulties were overcome. Safety experts at recent Mountaineer Leadership Conference emphasized
 the advantages of tracking Near Misses separately from the others.

The Safety Committee shares incident reports for 2018 – 2021 in this report, with any identifying information Mountaineers party members removed. The Safety Committee encourages you to examine the report narratives and lessons learned, as reported by the leaders and participants, and incorporate knowledge gained in your adventure preparation to reduce the probability and severity of incidents.

-- Bill Ashby 2021 - 2022 Safety Committee Chair

SUMMARY STATISTICS

In 2018 through 2021 there were 427 incident reports broken out as follows:



Incident Severity	2017	2018	2019	2020	2021
Critical	1				
Major	7	8	4	1	7
Significant	11	15	15	5	13
Minor	77	70	66	19	59
Near miss	12	18	20	5	19
Safety Concern	28	19	10	10	18
Assistance given	3	2	4		1
Other	6	10	6	1	2
Total	145	142	125	41	119

Critical Incidents are fatalities or life-changing incidents.

Major Incidents involve emergency medical attention or hospitalization; Search and Rescue (search performed); 911 call (emergency responders).

Significant Incidents involve medical attention or SAR or 911 called but no search performed.

Minor incidents involve 1) situations involving Mountaineers groups where injuries were minor, or 2) the situations affected the party in a negative fashion such has gear problems, party separation, personal conflicts, etc.

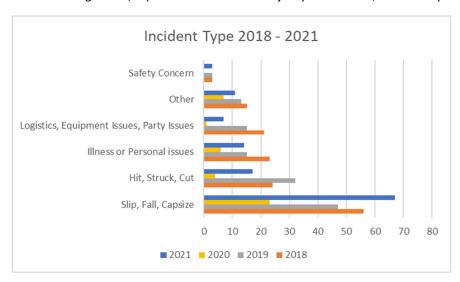
Party Assists denote when a Mountaineers group aids of another group responding to an incident described as MAJOR or SIGNIFICANT.

Near Misses and Lessons Learned are situations where no one was injured but safety concerns were raised. Safety experts at 2016 Mountaineer Leadership conference suggested that Near Misses are very important to track. Many of these are reported by trip participants.

Other incidents describe situations that don't well fit the above situations.

BAR CHART - INCIDENT CATEGORIES 2018 - 2021 (ALL SEVERITIES)

In 2018 through 2021, slips and falls were the majority of incidents, followed by hit and struck, and then conditioning/health issues.



Incident Type	2017	2018	2019	2020	2021
Slip, Fall, Capsize	57	56	47	23	67
Hit, Struck, Cut	20	24	32	4	17
Illness or Personal issues	29	23	15	6	14
Logistics, Equipment Issues, Party Issues	10	21	15	1	7
Other	24	15	13	7	11
Safety Concern	5	3	3		3
Grand Total	145	142	125	41	119

Incident descriptions indicate falls on trail are the result of:

- distraction (taking a picture or talking to passersby)
- stepping off trail to allow another party to pass
- Roots and other trail anomalies, wet logs, stream crossings
- Conditioning (reduced stamina) as a contributing factor

Falls off trail are the result of:

- On snow predominantly ice-axe skill related, but post-holing as well
- On scrambling terrain shifting rock while crossing talus
- On technical-climbing terrain handholds / footholds breaking off, judgement, skill

Hit and struck occur mostly off trail and are predominantly the result of rockfall, <u>the majority of which are human caused</u>. The Everett Branch prepared an excellent presentation on skills and approaches to reduce the frequency and severity of hit and struck due to human-caused rockfall. This presentation is available on the Safety Committee page of the Mountaineers website. <u>Rockfall</u> Presentation — The Mountaineers

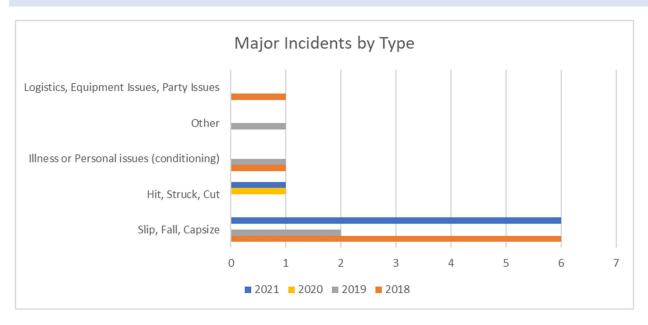
Here are lessons learned to employ in reducing the frequency and severity of slips and falls.

- Remain attentive to trail features/anomalies whenever moving.
- Ensure sufficient space between you and the person in front of you so that you can identify and maneuver around trail features/anomalies.
- Find a pace you can maintain without becoming overly winded or muscle tired.
- Find a pace you can safely identify and maneuver around trail features/anomalies.
- Maintain hydration and calorie intake to lubricate and power your travel.
- Consider enabling a means of both liquids and solid intake without the need to stop and remove pack.
- Have ready access to sunglasses and eye shades to improve visibility while moving.
- In a group, manage pack weight across the party early and often as needed to balance pace across the party.
- Call out to other trip participants when you identify something unique and unexpected in the terrain.
- Use proper foot gear for the terrain, and be prepared and willing to transition as needed:
 - approach shoes
 - light hiking boots
 - sturdy full-shank mountaineering boots
 - o climbing shoes
 - o micro-spikes
 - o crampons
 - snowshoes
- Use walking aids as appropriate including trekking poles or an ice axe as the terrain varies.
- When off-trail, maintain at least three points of contact with the terrain through use of hands, feet, and/or aids such as trekking poles or an ice axe.
- Practice, practice ice-axe skills.
- In the alpine, climb at a conservative level, compared with your gym-climbing level.
- In the alpine, test hand and foot holds, and avoid mossy / dirty holds.

Here are recommendations to manage the risk of hit and struck by rockfall while off-trail in the alpine.

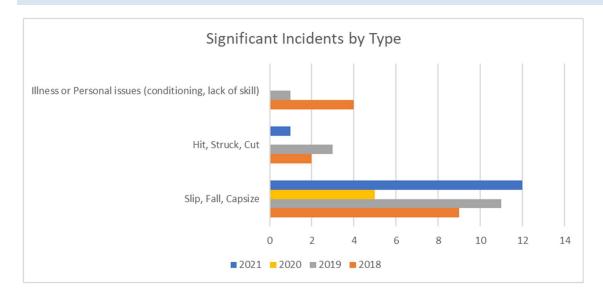
- Travel rock-fall prone stretches early in the day when ice is solid and is holding loose rock in place.
- Wear leather gloves and a helmet.
- When you become aware of falling rock, yell ROCK, ROCK!
- When you hear ROCK-ROCK above you, move out the way if you can, otherwise, get as small as you can, lower your head to protect your face, and if possible, remove your hands from handholds to reduce risk of crushing injuries.
- To avoid dislodging rock, step carefully; transfer weight to upper leg, then smoothly push down on it, rather than pushing off with your lower leg.
- Select drier vs. wetter terrain, wet soil is weaker and holds less well.
- When ascending broad talus slopes, consider spreading team laterally across slope.
- When ascending narrow defiles or gullies, consider passing crux sections one at a time, while others remain in a protected location out of the fall line.
- In general, keep group close together so a dislodged rock cannot gain momentum before passing everyone.
- Moving upslope on a diagonal prevents participants at lower elevation being in the fall line of those above.
- Consider using snowfields if you have appropriate traction gear and an ice axe.
- No single strategy works in all cases; take the terrain into consideration.
- Maintaining balance and walking carefully requires strength and conditioning built through sufficient "time on ascent and descent."

BAR CHART - MAJOR INCIDENTS



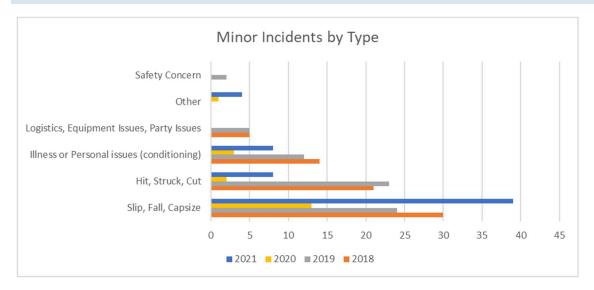
Major Incidents by Type	2017	2018	2019	2020	2021
Slip, Fall, Capsize	6	6	2		6
Hit, Struck, Cut	1			1	1
Illness or Personal issues (conditioning)		1	1		
Other			1		
Logistics, Equipment Issues, Party Issues		1			
Grand Total	7	8	4	1	7

BAR CHARTS - SIGNIFICANT INCIDENTS



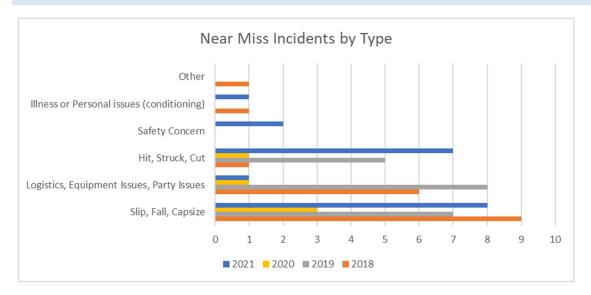
Significant Incidents by Type	2017	2018	2019	2020	2021
Slip, Fall, Capsize	8	9	11	5	12
Hit, Struck, Cut	3	2	3		1
Illness or Personal issues (conditioning)		4	1		
Grand Total	11	15	15	5	13

BAR CHARTS - MINOR INCIDENTS



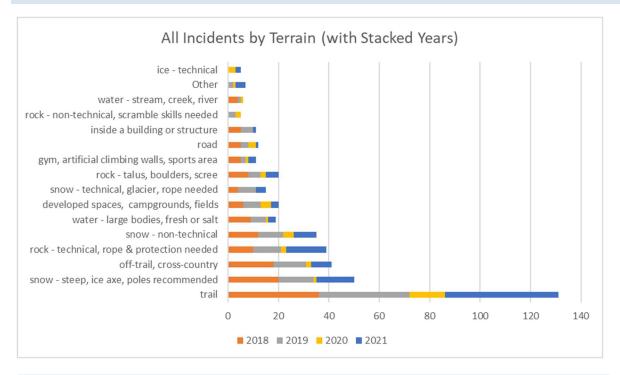
Minor Incidents by Type	2017	2018	2019	2020	2021
Slip, Fall, Capsize	32	30	24	13	39
Hit, Struck, Cut	14	21	23	2	8
Illness or Personal issues (conditioning)	25	14	12	3	8
Logistics, Equipment Issues, Party Issues	4	5	5		
Other	1			1	4
Safety Concern	1		2		
Grand Total	77	70	66	19	59

BAR CHART - NEAR MISSES



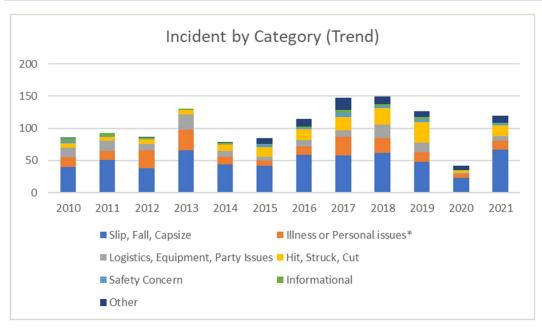
Near Miss Incidents by Type	2017	2018	2019	2020	2021
Slip, Fall, Capsize	7	9	7	3	8
Logistics, Equipment Issues, Party Issues	3	6	8	1	1
Hit, Struck, Cut	2	1	5	1	7
Safety Concern					2
Illness or Personal issues (conditioning)		1			1
Other		1			
Grand Total	12	18	20	5	19

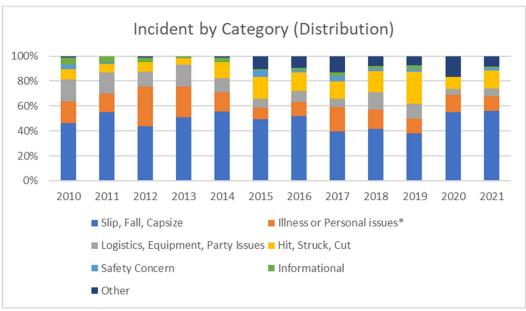
BAR CHART - INCIDENTS BY TERRAIN



All Incidents by Terrain	2017	2018	2019	2020	2021
trail	41	36	36	14	45
snow - steep, ice axe, poles recommended	15	20	14	1	15
off-trail, cross-country	15	18	13	2	8
rock - technical, rope & protection needed	16	10	11	2	16
snow - non-technical	15	12	10	4	9
water - large bodies, fresh or salt	8	9	6	1	3
developed spaces, campgrounds, fields	5	6	7	4	3
snow - technical, glacier, rope needed	6	4	7		4
rock - talus, boulders, scree	1	8	5	2	5
gym, artificial climbing walls, sports area	6	5	2	1	3
road	5	5	3	3	1
inside a building or structure	3	5	5		1
rock - non-technical, scramble skills needed	6		3	2	
water - stream, creek, river	2	4	1	1	
Other			2	1	4
ice - technical	1			3	2
Grand Total	145	142	125	41	119

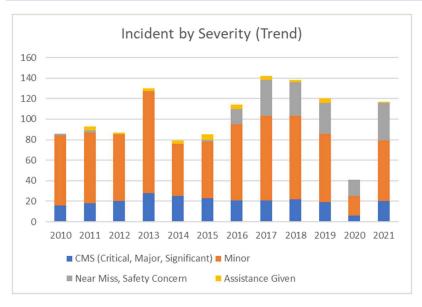
BAR CHART - COMPARISON OF INCIDENTS OVER TIME BY CATEGORY

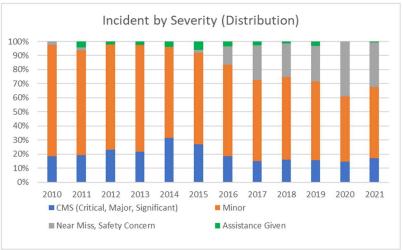




Org Level Incidents by Category	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
org rever medicines by editegory	2010	2011		2013	2014	2015	2010	2017	2010	2015	2020	
Slip, Fall, Capsize	40	51	38	66	44	42	59	58	62	48	23	67
Illness or Personal issues*	15	14	28	32	12	8	13	29	23	15	6	14
Logistics, Equipment, Party Issues	15	16	10	23	9	6	10	10	21	15	2	7
Hit, Struck, Cut	7	6	7	7	10	15	17	20	25	32	4	17
Safety Concern	3	1				4	2	6	3	3		3
Informational	5	5	3	2	3	1	2	5	3	4		1
Other	1		1		1	9	11	19	12	9	7	10
Total	86	93	87	130	79	85	114	147	149	126	42	119
* conditioning, lack of skill												
Slip, Fall, Capsize %	17%	15%	32%	25%	15%	9%	11%	20%	15%	12%	14%	12%
Illness or Personal Issues %	17%	17%	11%	18%	11%	7%	9%	7%	14%	12%	5%	6%
Logistics, Eqpmt, Party Issues %	8%	6%	8%	5%	13%	18%	15%	14%	17%	25%	10%	14%
Hit, Struck Cut %	3%	1%	0%	0%	0%	5%	2%	4%	2%	2%	0%	3%

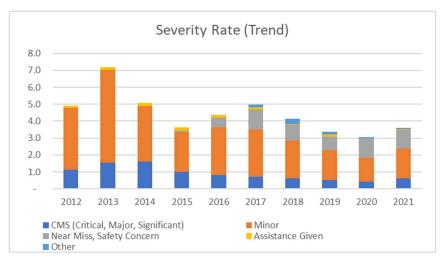
BAR CHART - COMPARISON OF INCIDENTS OVER TIME BY SEVERITY





Incidents by Severity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Critical		1		1	1			1				
Major	5	5	9	12	14	7	7	7	8	4	1	7
Significant	11	12	11	15	10	16	14	13	14	15	5	13
Minor	68	69	65	99	51	55	74	82	81	67	19	59
Near miss	1	2				2	9	18	21	20	6	19
Assistance given		4	2	3	3	5	4	4	2	4		1
Safety Concern	1						6	17	12	10	10	18
Informational											1	0
Other								5	11	6		2
Total	86	93	87	130	79	85	114	147	149	126	42	119
CMS (Critical, Major, Significant)	16	18	20	28	25	23	21	21	22	19	6	20
Minor	68	69	65	99	51	55	74	82	81	67	19	59
Near Miss, Safety Concern	2	2	0	0	0	2	15	35	33	30	16	37
Assistance Given	0	4	2	3	3	5	4	4	2	4	0	1
CMS %	19%	19%	23%	22%	32%	27%	18%	14%	15%	15%	14%	17%
Minor %	79%	74%	75%	76%	65%	65%	65%	56%	54%	53%	45%	50%
Near Miss, Safety Concern %	2%	2%	0%	0%	0%	2%	13%	24%	22%	24%	38%	31%
Assistance Given %	0%	4%	2%	2%	4%	6%	4%	3%	1%	3%	0%	1%

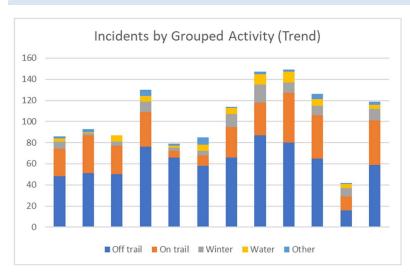
BAR CHART COMPARING INCIDENT RATES PER 1,000 PARTICIPANT DAYS OVER TIME

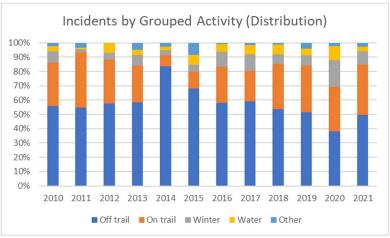




Incident Rates by Severity	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
CMS (Critical, Major, Significant)	1.1	1.5	1.6	1.0	0.8	0.7	0.6	0.5	0.4	0.6
Minor	3.7	5.5	3.3	2.4	2.8	2.8	2.2	1.8	1.4	1.8
Near Miss, Safety Concern				0.1	0.6	1.2	0.9	0.8	1.2	1.1
Assistance Given	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	-	0.0
Other						0.2	0.3	0.2	0.1	0.1
Total	4.9	7.2	5.1	3.6	4.4	5.0	4.1	3.4	3.1	3.6
CMS (Critical, Major, Significant)	23%	22%	32%	27%	18%	14%	15%	15%	14%	17%
Minor	75%	76%	65%	65%	65%	56%	54%	53%	45%	50%
Near Miss, Safety Concern	0%	0%	0%	2%	13%	24%	22%	24%	38%	31%
Assistance Given	2%	2%	4%	6%	4%	3%	1%	3%	0%	1%
Other	0%	0%	0%	0%	0%	3%	7%	5%	2%	2%

BAR CHARTS - INCIDENTS BY ACTIVITY GROUPING





Incidents by Activity Group	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Off trail	48	51	50	76	66	58	66	87	80	65	16	59
On trail	26	36	27	33	6	10	29	31	47	41	13	42
Winter	7	2	4	10	3	4	12	17	10	9	8	11
Water	3	1	6	5	2	6	6	10	10	6	4	4
Other	2	3	0	6	2	7	1	2	2	5	1	3
Total	86	93	87	130	79	85	114	147	149	126	42	119
Off trail %	56%	55%	57%	58%	84%	68%	58%	59%	54%	52%	38%	50%
On trail %	30%	39%	31%	25%	8%	12%	25%	21%	32%	33%	31%	35%
Winter %	8%	2%	5%	8%	4%	5%	11%	12%	7%	7%	19%	9%
Water %	3%	1%	7%	4%	3%	7%	5%	7%	7%	5%	10%	3%

Activities are included in groups as follows:

- Off trail Climbing, Scrambling, Canyoning, Navigation
- On trail Hiking, Backpacking, Trail Running, Urban Adventures, Stewardship
- Winter Avalanche, All skiing forms, Snowshoe, Winter Scrambling
- Water Kayaking and Sailing
- Other All other activities

On a quarterly basis, additional incident trend information by activity grouping --- including incident category and rates --- are reported to the Board, Risk Management Committee, Branch Leadership Committee, Safety Committee, and activity Summit Groups. Climbing, Scrambling, Snowshoe, and Kayaking detail is also reported to Summit Groups and Safety Committee.

On a quarterly basis, incident description and lessons learned detail information --- similar to that in the attached document --- is provided to Risk Management Committee, Branch Leadership Committee, Safety Committee, and corresponding activity Summit Groups.

Detailed incident reports and lessons learned are included in the attached table.

DATE	ACTIVITY	SEVERITY	INCIDENT CATEGORY	SPECIFICS	TERRAIN	INCIDENT REPORT	LESSONS LEARNED	KEY LEARNINGS
Feb- 18	Avalanche	Safety Concern	Other	equipment issues	Inside a building or structure	The hot water temperature at Baker Lodge is alarmingly H-O-T! I don't mean to be an alarmist, but someone is going to get badly scalded if left as is. Maybe the thermostat setting got bumped unintentionally? Please have the caretaker check this ASAP. I did not check the showers, but IMO, we need to verify that there is some type of temperature control in the shower faucet that ensures the water temp is never at a scalding temp. This is where I worry about someone getting injured.	Ensure water heater thermostat temp is set appropriately. Verify that there is some type of temperature control mechanism in the downstairs shower faucet that restricts the water to a max temp.	Outdoor Center
Feb- 18	Snowshoeing	Minor	Logistics, Equipment Issues, Party Issues	equipment issues	Snow - non- technical	P was enrolled in the Winter Camping course and attended the presentation which focused on winter gear, especially boots. Waterproof boots were presented and discussed in the course of the presentation. An e-mail was sent to all participants advising them of the expected overnight low temperatures for the outing. At the meeting place, where roll call was conducted, P's gear was viewed by several instructors. P was wearing long ski pants which obstructed most the view of boots. The boots appeared leather in construction with a hard rubber sole. Nothing jumped out as the boots being inadequate at this time. Field trip and snow structure construction activities are wet by nature. P worked with other participants to construct a snow cave. At the conclusion of snow structure building and into dinner phase, P contacted an instructor to request plastic bags after changing into dry socks. P was provided plastic bags to protect here dry socks. However boots were wet with an air temperature of 24 degrees. At dinner P complained about cold feet. P was moved to tent and the designated first aid responder examined feet for frostbite and provided a warming technique to help warm feet. P was moved into sleeping bags and was provided a hot water bottle to help maintain body temperature, along with hot water bottles placed in boots to prevent them from freezing solid. P didn't show any signs of frost bite, just cold toes. However, during treatment, it was discovered the boots were actually dress boots from GAP and not designed for the outdoors. While the leather in appearance construction, it wasn't actual leather. Ski pants were the contributing factor in not being able to see all of the boot, prior to this incident.	Close clothing check including boots is important. The boots were observed by another participant, who questioned the participant on boot selection, but this information was not relayed to instructors. All participants looking out for risk situations and bringing them to the attention of leaders/instructors is important.	Gear
Feb- 18	Navigation	Safety Concern	Logistics, Equipment Issues, Party Issues	weather related	off-trail, cross- country		Navigation fieldtrip should be called when the forecast predicts winds of 25 mph and a winter weather warning, as there is risk of trees fall during the activity. Paying attention to the weather forecast and making go/no go decisions based on forecast conditions are vital for safety outdoors.	Heybrook

						During the morning exercises a number of students appeared to be unprepared for the conditions. Hand warmers and some instructors gear were loaned out. At the lunch break, there were many students beyond uncomfortable, and a few were borderline hypothermic. While the instructors were discussing options for a shortened version of the afternoon exercises or just calling it a day, the wind picked up and some trees started to come down. At this point we decided to just bail. Everyone hiked down without incident.		
Mar- 18	Winter Scramble	Safety Concern	Illness or Personal issues (conditioning , lack of skill)	injury/ illness - sudden onset	Snow - non- technical	A strong team of 4 experienced scramblers headed to Oakes Peak. From the start, my legs simply would not keep me up with the group. I have scrambled with all of these people before and have always been fine. I have not taken a break from working out, nor do I have any injuries other than some arthritis in a knee from surgery a few years ago, which I always push through. At first, I just sucked it up and kept up, but as we continued to ascend, I fell further and further behind. I was stumbling and off balance but could not attribute it to any specific medical or physical condition. I had eaten enough food and was well hydrated and well rested. About 3 hours into the trip when we had only ascended 2300', I decided that I was not going to be able to continue, despite having no obvious physical or medical issues. I decided to head down following our tracks carefully to the car while the other scramblers continued. At a clearing I took a nice long break, drank some hot chocolate and ate some more food, and got back to the car uneventfully. I was slow and cautious but other than simply feeling off balance and weak, nothing felt wrong. I felt fine the entire rest of the day, and over the next two days I completed two very long and strong workouts. I didn't notice any soreness or instability.	Turning around was the right decision for me, not because I was in danger or would put the team in danger; I was simply going too slow and if I had stayed with the group there would have been no chance whatsoever of a summit. I felt comfortable turning around because the team was so experienced, and we all had independent ways to handle an emergency.	Conditioning
Mar- 18	Climbing	Significant	Slip, Fall, Capsize	fall (travel a distance)	rock - talus, boulders, scree	I slipped on rock and subtly fractured the distal end of my radius bone at the wrist by way of a "FOOSH" Fall On Outstretched Hand. I'll be getting a wrist cast for 4-6 weeks. We were on the Sunshine Wall at Vantage in the morning of Sunday March 11. I was going back and forth at the base to help different teams locate and set up routes for students to practice climbing skills. As I scrambled up toward Vantage Point on the basalt "steps", my right foot slipped out. I began to fall leftward and put out my arm. It must have landed pretty solidly on the base of my palm near my thumb and jammed the radius bone pretty hard. I also took a tumble and landed in the trail. Initially, I felt a scratch on my elbow and below my knee and didn't really feel wrist pain until later in the day. But by evening as I got home, it was swelling and needed attention. The doctor needed second opinion on the X-Ray, and the radiologist said there could be a subtle fracture on the end of the radius.	I know I was "hurrying" to distribute group gear and help people get set up at multiple locations and the complex terrain was definitely not the place to be hurrying. It could have been much worse, I'm sure. Slips and Falls are the most common incident. I had even mentioned the scree and such as an objective hazard for the day.	Terrain Navigation
Mar- 18	Climbing	Near Miss	Logistics, Equipment Issues, Party Issues	rappel	rock - technical, rope & protection needed	At a Basic Rock Field Trip on the Friction Slab wall in the Mt. Erie climbing area, we had set up a handline to reach an easier start to the pitch of one of the climbs and have students practice prusiking up and clipping into a hand line. Belays were happening on the ground with the students transferring with the help from an instructor to the rope (the ledge was about 15 feet off the ground). Towards the end of the day, this pitch was converted by the instructors at the top of the crag into a rappel station as well. I was belaying a student when I looked up and saw another student on that newly converted rap station and saw the rope was	The instructor above didn't see the midpoint on the rope when turned into a rappel from a top rope. This should ALWAYS be checked. At the beginning of the day, all ropes had knots tied into the ends and these were checked throughout the day. Since we only had one rappel station the entire day, there were always knots in the ends of the rope without a problem. Apparently, someone who had been climbing on the newly converted rope had removed one of	Gear setup

				1	1			
						unevenone of the ends of the rope was on the ground with a stopper knot and	the knots, perhaps when untying from a belay, and it wasn't	
						the other was a few feet from running through the student's belay device, no	checked or asked to be checked when it was converted into a	
						knot on the end of the rope. I yelled for S to stop rappelling (they all were rapping	rappel. Complacency was a learning lesson here, the	
						with autoblocks) and S came to a stop. S was in a good spot on a friction slab so	instructors at the top assumed that the knot was still in the	
						we had S stand up on the slab (keeping hand on the break) to take weight off the	rope and assumed that the other end was on the ground,	
						rappel to move the autoblock up rope, which would enable S to try and feed one	instead of lying on the shelf, and no one from above yelled	
						strand of the rope up-rope so we could have the instructor from above try to	down to check if that was the case. DOUBLE AND TRIPLE	
						equalize the rope. This worked and student tied a knot in the end of the rope, and	CHECK EVERYTHING. The students learned a few very	
						we had S clip into the handline, which we extended with a runner and had	valuable lessons. After I gathered everyone who was below to	
						student clip to harness. We were then able to have S take enough of the rope to	debrief them on the possible consequences, other	
						equalize the strands from above and S was safely lowered to the handline ledge,	alternatives we could have taken (there was also a bolt	
						then to the ground.	nearby, S could have clipped a runner to that bolt, but we had	
							the handline with an anchor there so that was the option we	
						PARTICIPANT	used to clip S in) and what to do to keep something like this	
						Student was rappelling at a crag, but the rope was not centered on the anchor	from happening in the future (make sure you always find the	
						leading to different length strands. The issue was caught well in advance of	midpoint, that both rope ends reach the ground and that	
						reaching the short end and multiple instructors worked together in a very	there are always stopper knots in the end of the rope, that	
						efficient manner to safely anchor the student and fix the situation so that she	rappelling with an autoblock is important for a backup). I	
						could safely complete the rappel.	finished by saying that no instructor or leader or other	
						Country complete the rappen	student is going to be put out if a someone (even a new	
						Following this, trip leader interviewed everyone involved, debriefed all	student) notices something is or could be wrong, or just	
						participants, and instituted protocol to avoid the same issue from occurring again.	doesn't look quite right. Speak up if there is any concern or	
						participants, and instituted protocor to avoid the same issue from occurring again.	question and we can all stay safe!	
Mar-	Scrambling	Significant	Hit, Struck,	hit/cut -	Snow -	We had our Snow I field trip above Paradise on Mt Rainier on Saturday. There		Ice Axe
18	Scrambling	Significant	Cut	equipment,	steep, ice	were 4 injuries /incidents to report. listed in order of severity.	techniques.	ice Axe
10			Cut	tool	axe, poles	were + injuries / incluents to report. listed in order of severity.	teeriniques.	
				1001		Incident 1: Ice as to the thigh. This injury did require a visit to an urgent care		
					recomme nded	Incident 1: Ice ax to the thigh. This injury did require a visit to an urgent care		
					naea	clinic. The patient did not require stitches and was given antibiotics and tetanus		
				1		shot.		

Mar	Climbing	Major	Clin Fall	fall /travol	rock	We had a leader fall on this trip. The assident happened on a F.7 route. I have	When I saw I leading that morning I felt a hit upcass I	Skill Judgomont
Mar- 18	Climbing	Major	Slip, Fall, Capsize	fall (travel a distance)	rock - technical, rope & protection needed	We had a leader fall on this trip. The accident happened on a 5.7 route. I have climbed with L a number of times before, and I know L as a solid 5.8 leader. On the day of the incident, I saw him take a small leader fall (the pro was at waste so it was no big deal). However, I got the impression L was a bit rusty, and L later told me that L had not been climbing since last September (including indoor climbing). L wanted to lead a 5.8 but I talked L out of it. The 5.8 had a big ledge underneath a roof, and there was a longish no fall zone. I was concerned that the 5.8 was over L's head. Note that most routes in Joshua Tree are pretty sandbagged. L was adamant that L wanted to lead something. I did not want L to lead two	When I saw L leading that morning, I felt a bit uneasy. L looked rusty - as if L had not climbed in a while which was in fact the case (but I did not know it at the time). After I saw L take the small leader fall, I did not want L to lead anything hard, and I talked L out of the 5.8 route. However, L was adamant that L wanted to lead so we discussed a 5.7 route that I had not led myself and therefore did not have much beta. Given my uneasy feelings that morning I now feel that I should have at least suggested that L top rope any route first	Skill Judgement
						routes as I had done them before and new how sandbagged they are. I told L that if L wanted to lead it L would need to lead a 5.7 route. L agreed. L was struggling on the lower part but made it ok to a ledge at the bottom of a chimney. L had difficulties in the chimney could not move up. L indicated L placed a nut in the chimney above the ledge but P said that P did not see a nut and it was not on the rope, so it is unclear if L in fact did place a nut and forgot to clip it, or if it pulled and got lost in the chaos later. In any case, P (who finished the route later to retrieve the gear) said there was gear above the ledge in the chimney but no nut. L must have fallen from approximately 10-15 above the ledge, and L landed on the ledge. R, who was belaying L, said it was at first not clear if L fell. The rope went tight, and then nothing happened. P called to L, and L replied that L was ok. P then asked if L wanted to come back down, and after a few minutes L replied yes. L then built a three-piece anchor where L's last piece was and was lowered to the ground. S, a participant on the trip, is a doctor and did the physical examination. They found a deep round puncture wound on L's right butt cheek, and L was AOL times 2 or 3 - L could not recount what led up to the incident and had difficulties remembering what day of the week it was. P cleaned the wound and applied a gauze pad. L was able to walk so others walked L back to the car and took L to the ER. They did a CAT scan at the ER, took care of wounds and released L later that same evening. In addition to the wound, they told L likely had a mild concussion. L stayed with us in Joshua Tree for the next few days but did not climb. The first few days L appeared as if had taken drugs - L was slow and sluggish mentally and physically, but the symptoms got better with each day. We last saw L on Wednesday - five days after the accident - and L appeared normal. L was supposed to take part in my Red Rocks trip, but L cancelled and is now driving	before attempting to lead it. However, L is a climb leader and has climbed for a long time. L was fairly insistent that L wanted to lead. The risk of taking a leader fall is inherent in lead climbing, and within reasonable limitations participants must be allowed to make their own decisions. I feel I should have raised the option to top rope first, but ultimately, I feel it was L's decision.	
						home.		
Mar- 18	Climbing	Assistance Given	Slip, Fall, Capsize	fall (travel a distance)	Snow - non- technical	Our group had set up basecamp near tree line just off the Worm Flows route of St. Helen's. A snowboarder (not in our party) crashed and injured his arm or shoulder about 100 yards from our base camp. It was getting late in the day, probably around 6:30pm. We did not realize he was injured until his partner walked over to our camp for help. He said his friend had torn his rotator cuff and was in a lot of pain. We hiked over to check him out. V had more advanced first	The snowboarder was extremely lucky in a few ways. First of all, his accident happened very close to our well-established and large camp. They were the last group we saw descending that day. If we hadn't been there, they would have been alone in the dark, in the cold. It was a cold, windy, and snowy night. His friend alone would not have been able to assist him	
						aid training than the rest of us, so he assessed the shoulder injury. The injured snowboarder was lucid and coherent but would shriek in pain anytime he was	back to the trailhead in the state he was in. Our group was large enough and well-prepared enough (12 of us so lots of	

						moved at all. V made attempts to move his arm into a position where we could sling/swathe it, but it was too much pain for the snowboarder to bear. He seemed to need his arm to be held up and out and couldn't fold it in against his chest. We walked the injured party to our camp. One in our party brought a SPOT beacon. Initially, I thought that since it was an upper body injury, the injured party could walk out. As we worked with him, I realized that any movement caused a lot of pain, and walking would be long, cold, and painful, as night was falling soon. We activated the SPOT. It was probably around 7pm at this time. We got injured party into a more comfortable position. We put pads down and got extra layers, and he was able to get comfortable laying on his side. We offered food, but he wasn't hungry, but took some water. I was able to get a call out to 911 and tell them the situation and our location. We gave them our GPS coordinates, but the call was dropped, and I'm not sure they received the full coordinates. Neither the injured party or his partner were carrying much in the way of gear. They had small backpacks with food and water. They had one headlamp, but it didn't have batteries. We gave them one of our headlamps and one of our radios. As it was getting dark, we moved the injured party into the tent that was nearest to the trail. He stayed in the tent with a party member. He got settled into a fairly comfortable position and was stable. A rescue party arrived very quickly, by 9:30pm. They had been training on St. Helen's earlier that day, so were very close by. They assessed injuries and were able to get him to walk out of camp about a half mile to where he could be pulled out on a sled.	safety gear!) that we could scrape together extra food, clothing, and tent space for him, as well as an extra headlamp and radio for his friend. The SPOT beacon came in extremely handy, as well as a cell phone with coverage in the wilderness (Verizon is worth the money!!!). A one-day snowboard trip up and down St. Helens can seem pretty casual. But one bad fall, too late in the day, and things get hairy pretty quick. In short - he and his friend were not prepared for anything to go wrong, but we were. He is very fortunate we were there.	
Mar- 18	Climbing	Minor	Hit, Struck, Cut	hit/cut - equipment, tool	Snow - steep, ice axe, poles recomme nded	Doing self arrest with ice axe going down on my back headfirst. When I flipped over to arrest the axe bounced off the snow and stuck me in the forehead.	Practice your ice axe self arrest technique and make sure you have it in the right position.	Ice Axe
Apr- 18	Day Hiking	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	water - stream, creek, river	LEADER My co-leader incurred an injury to left cheek bone on this hike. This happened at our second creek crossing. While walking across a log to cross the creek, CL slipped and fell forward, hitting face on the log. CL was able to stand up on own and finishing making way across the log. CL had a few small open wounds on face, which our first aid leader, a nurse, helped clean and cover with gauze and bandages. A hematoma had immediately formed where CL had hit cheek bone, and our first aid leader was concerned CL may have a broken bone, but after seeing that CL could move jaw, ascertained that it was just bruising. CL seemed otherwise okay. We had two other minor slips: on our return, I slipped on a log at our second creek crossing (I was scouting a different route across that creek), but I was fine (other than wounding my dignity) and was able to continue without any problem. My back felt a little sore later in the week. Another hiker in our group, also slipped on a log at our second creek crossing on our return and ended up getting feet wet. P didn't have extra socks but I was able to lend a pair so P could get feet dry afterward. P was also fine to continue, reporting afterward that P knee was a little bit sore. CO-LEADER I fell while exploring options for a stream crossing and hit my face on	In hindsight, I think at least two things could have been done differently: 1) Upon approaching the second creek crossing and seeing that the water level was pretty high, I should have made an executive decision for all of us to stop there. 2) My co-leader and I should have communicated more clearly. After approaching the second creek crossing, I took a minute to assess whether I could see a safe route across. While I was doing this assessment, my co-leader walked a way downhill and off-trail to see if CL could find a viable crossing. At this point, my first aid lead told me a participant would feel uncomfortable about crossing here because of the potential risks/worst case scenarios involved. I decided that it did not look safe to cross where we had first approached, but decided to have the group follow after my co-leader so that we could watch CL progress and not be too far from CL. My co-leader was able to cross the creek but didn't realize that we had followed DL down to where CL had crossed and	Stream Crossing Party Separation Leadership Communication

a rock, causing a bruise on the left cheekbone, a hematoma and some minor scratches. At the time of the fall, I was distracted by encountering some fellow hikers and talking to them, which caused me to be less careful of where I was stepping. I went to the Seattle VA immediately after the hike. There an x-ray and CT scan showed that no bone was broken. They sent me home with a pain killer and ice pack. As of two days after the hike, I am recovered well enough to lead a hike tomorrow.

PARTICIPANT Co Leader fell into a stream and hurt face. We had a nurse on the trip who bandaged CL up. We were worried CL broke a bone in face, but CL went to the hospital after the trip and I understand it's not broken.

PARTICIPANT We were hiking twelve miles on the Middle Fork of the Snoqualmie River. There was seven in our group with two leaders. It was very wet, raining and the trail was muddy with free-flowing water in some spots and a few creek crossings that were dubious. Three miles in we were forced to stop as there was a creek crossing that seemed impassable. The water was relatively deep, moving fast and there were several wet felled logs and boulders in the middle. Our guides were assessing whether it could be crossed. A few of us, myself included, were nervous about crossing as there didn't seem to be a safe way over. I expressed my views with a leader who tended to agree. L announced that we wouldn't proceed but realized the other leader had left the group to go downstream, into the woods to attempt a crossing. Given the rain and how loud the creek was, and how far away CL was from us, could not communicate with CL. L decided we needed to make our way closer to CL by trying to follow where CL had gone though it wasn't clear how CL had gotten to where CL was. We saw CL had managed to get to the other side but had to partly wade over. We made our way through the woods and across a smaller creek crossing onto an island of sorts and L waved CL back over. As CL was trying to get back across, CL slipped and fell, hitting face hard on a wet log. At first, I couldn't tell if CL had lost consciousness as CL lay still for a few seconds but then got up, though CL was obviously shaken. I saw CL had a few bloody abrasions on his face. L had to make way to CL to assist CL getting back over. I had been elected first aid person so got into my first aid kit and with the assistance of others, cleaned and dressed CL wounds. CL had a large swollen area under left eye that was concerning and I felt CL needed to have it looked at as soon as possible. We got back to the trail, stopped for lunch and so CL could change clothes, eat and apply an ice pack to face before we started off again. We cut the hike short and returned without incident to the trail head.

started hiking back up to the trail. CL couldn't hear me over the distance and sound of the water. At this point, myself and the group still hadn't crossed the creek. I later found out that it was my co-leader's intention to cross back and inform us that CL didn't think it would be safe for the group to cross. Not realizing this, I wasn't sure how to proceed. It seemed safer to cross at this lower access point, but it would still be an intimidating crossing for a beginner-level hiker (we had three hikers who were pretty new to the Mountaineers). After checking in with the group, we began the crossing (there were 3 sections to cross). After successfully crossing the first two sections, I didn't feel safe having the group cross the third section, or even crossing it myself. My co-leader was standing across from that 3rd section and was now able to see us. I signed to CL that we didn't want to continue. It was there that CL began crossing back and slipped. My coleader and I should have consulted and agreed on a plan before doing any scouting. I also realized that if anything had happened to my co-leader when CL was first scouting the creek crossing, we may not have seen it or may not have been able to get to CL quickly enough. As a newer hike leader (this was my fifth hike as leader), this was certainly a learning experience for me in risk assessment and decision-making. My take-aways are to opt for the more conservative option when in doubt, to not have any one person get out of sight of the group if scouting a crossing, and also to be sure to communicate very clearly with any co-leaders (and agree to do so before the hike).

CO-LEADER Be cautious while exploring stream crossing options.

PARTICIPANT Co Leader went off on own downstream about 100 yards to try crossing the river while the leader was assessing the main crossing. Leader had decided it was too dangerous, but then L decided we should find the Co leader. We tried to follow CL path, but hadn't made it all the way across, and decided not to. Then CL tried to come back and fell. The CL shouldn't have gone off on their own. Perhaps the leader should have insisted CL stay with us, that the crossing was too dangerous, etc.

PARTICIPANT The main concern I have is the lack of communication between the leaders. I feel one should have consulted with the other and even the rest of us before trying to figure out how to get across that creek. It put the other in a bad position as L had to decide to overrule CL or go along with CL, potentially putting the rest of us at risk. We also had

							to go out of our way to get close enough to let CL know we weren't moving forward with the hike. L put L in jeopardy by having to assist CL when CL fell, and if L had been hurt as the rest of us would have had to split up, some to go for aid and others to stay and provide first aid. Luckily, that didn't happen. This is my second hike with The Mountaineers. I'm typically a fair-weather hiker, so hiking in less than desirable weather is new for me. I know The Mountaineers don't let weather deter them, which I applaud, but given the conditions of the trail perhaps a later Spring hike would be better. Just a thought. Overall, I had the utmost faith in both leaders, but feel talking out first would have been the wiser thing to do	
Apr- 18	Climbing	Near Miss	Slip, Fall, Capsize	fall (travel a distance)	rock - technical, rope & protection needed	I witnessed an instructor take a long leader fall. There was no significant injury. The fall was in my opinion longer than it should have been, partially due to the fact that the climber was considerably heavier than the belayer and the belayer was not anchored. Ideally, the climber would have placed additional pro to shorten any possible fall, but in fairness to the climber and belayer the fall was a surprise, unexpected type of fall.	Anchor the belayer. Place pro more often prior to a sketchy section with higher risk for falling. Communicate with the belayer "Watch Me!" Before sections with more difficult moves, when possible. In this case the fall was a surprise to the climber, belayer and onlookers alike and hence it doubtful that it could have been anticipated. Increase awareness that a one pitch trad climb is not a one pitch sport climb. The risks are higher on trad routes. In this case the top piece held, but had it failed this could have been an injurious ground fall. While sport routes are commonly climbed without an anchored belayer, it is usually prudent to anchor the belayer on a one pitch trad climb.	Gear setup
Apr- 18	Sea Kayaking	Significant	Illness or Personal issues (conditioning , lack of skill)	water incident - capsize, immersion	water - large bodies, fresh or salt	A student reported another student with a severe pain inside. S went to Urgent Care and was told it was a hernia that will require surgery in the near future. While it may be that the physical activity at the Open Water Session contributed to the injury, student doesn't report that S felt any pain until Monday morning. I don't have any feedback as to whether student had any symptoms prior to the Open Water session so can't come to any conclusions about the cause.	I can't see that there is or was anything that could have prevented this personal injury.	
Apr- 18	Sea Kayaking	Major	Illness or Personal issues (conditioning , lack of skill)	water incident - capsize, immersion	water - large bodies, fresh or salt	LEADER Student completed the swim (one pool length, wearing PFD, pulling kayak and paddle). After the wet exit skill demonstration, S attempted that skill. S experienced significant discomfort and exited the pool. Reassessment after allowing S resting time did not show sufficient progress toward recovery and the EMTs were called. EMTs stated vitals were good, and S had no indications of the standard major concerns (stroke, heart issues). As S was still experiencing vertigo to the point where S was not willing to attempt standing, S was transported to a hospital. Follow-up from son (who was one of the instructors at the pool) reported that the hospital identified an ear infection that was apparently unnoticed after a recent cold. The indications are that the ear infection contributed to vertigo, exacerbated by the act of rolling upside down underwater for a wet exit, and to direct discomfort, exacerbated by elevated pressure from the water. Participant was discharged same-day and feeling better by the following morning.	LEADER The usual questions about physical readiness for activity may be less effective in the setting of a course exercise where anxiety about new conditions, skills, and performance can cloud self-awareness and reporting. A public pool is a far less challenging setting for event management than many mountaineer activity locations. PARTICIPANT For me it was the first time in a bunch of new gear. I am not very comfortable in water. I might have benefited from some time in the water, without the kayak, just getting used to the gear (pfd, wet suit, etc.).	

						PARTICIPANT After the first exercise for wet exit from kayak, I collapsed and could not function. I was able to talk. From my point of view the first aid was excellent. I was not improving so I was sent to the hospital by ambulance. Heart attack and stroke were ruled out. Current diagnosis is vertigo related to a sore throat. My son was an instructor at the class and will be able to give more specifics. The goals of the class were clear. The activities were well described before the class and during the class just before each activity. My instructor was patient, listened to my concerns and modified the lesson for me. We approached the lesson in baby steps, by my request. The underlying problem was all mine. I knew before I signed up for the class that I was not very comfortable in the water and that my eyesight was such that I would be disorientated during the specific activity. I thought my sore throat had run its course before the class. I did not anticipate my body's reaction. I concur with the necessity of the skill that were being taught as essential to being a safe kayaker. I agree with the necessity of being able to trust your fellow paddlers on a trip. I apologize for the stress I caused the leaders, instructors and fellow students. I will happily reimburse for expenses incurred for my treatment. Let me again emphasize that leaders and instructors were prepared and acted	
Apr- 18	Scrambling	Safety Concern	Logistics, Equipment Issues, Party Issues	party issues - conflict, misunderst andings, organizatio	Snow - steep, ice axe, poles recomme nded	P was not ready for this trip. P was moving fairly slowly on the way up, but on the way down, P outright refused to move efficiently. It transpired that P had also refused to practice glissading during the field trip and had no practice plunge stepping either. This resulted in long, uncomfortable waits for the whole group-luckily the weather was stable, so this did not turn into a proper emergency situation. It feels like passing the snow field trip was too much of an automatism. Some more scrutiny should be applied. In addition, it might make sense to re-practice descent techniques on the student scrambles *as soon as the group gets into the snow*, otherwise you run the risk of being committed before you find out about improper skill.	Conditioning
				n		My main concern here is that P neglected to inform the group until we reached the summit!	
May- 18	Sea Kayaking	Significant	Slip, Fall, Capsize	water incident - capsize, immersion	water - large bodies, fresh or salt	Sea kayaking basic student injured left shoulder while performing a self-rescue. Immediately after the injury, the student informed me of injury. The instructor, student ratio was one on one in chest deep lake water (Island Lake County Park). The student, when asked if wanted to continue or seek medical attention by the Kayaking Chair, the student stated wanted to continue participating in the class and performed the assisted rescues successful after lunch. The next day, the student contacted the Sea Kayaking Chair via phone, stating S was at the regional medical hospital, seeking treatment for injured shoulder. Later, the student emailed me (Sea Kayak Chair) with medical status report: "I	
						thought I would update you after the phone call this morning. I had a great time yesterday and it was good to practice the rescue skills and paddle strokes in a controlled environment. I mentioned yesterday during the training shoulder was controlled environment. I mentioned yesterday during the training shoulder was	

						a little sore and I needed to take care of it for the remainder of the day. By the time I left for home it was very sore and I thought with ice and rest it would feel better. This morning it was still painful and I went to the ER for a consult after talking to you. The doctor prescribed some medication and rest and it was probably a good idea that I had to pass. I need to see my doctor about a recommended MRI tomorrow. Thanks for your patience with this and I hope today was a great time. After a follow up with my doctor we can see about the necessary steps for me to finish the basics class. Keep the white side down."	opposite direction causing injury. Caution regarding the aforementioned was verbally given to the students prior to this incident happening. I will seek out how other branches instructors instruct this segment, hence, so we can modify our program to prevent this injury from reoccurring.	
Ma 18	y- Climbing	Minor	Logistics, Equipment Issues, Party Issues	lack of skill, preparatio n, conditionin g, fatigue	Snow - steep, ice axe, poles recomme nded	Our climb of the Tooth had 2 basic students. S1 was a 2nd year student that was on first climb since a non-climbing accident last summer. S2 was a first-year basic student. S2 showed up with no helmet and P had a spare so S2 was allowed to continue. S2 also had an ice axe that was considerably too small. This did cause some issues later on in the struggles with arrest and glissade. S1 was argumentative about having to carry the rope, claiming had never heard that students carry ropes. It was pretty clear S1 saw rope carrying as a rope leader (or anyone but S1) responsibility. Both Students both quickly fell behind even though the pace was actually on the slow side of moderate. Within 20 minutes it became apparent they could not keep up and the ropes were redistributed to myself and co-lead. Both Students continued to struggle on the approach despite a number of group breaks along the way. Both students displayed poor snow travel and ice axe skills on the approach. Not a safety issue at that point but a concern. By the top of Pineapple pass S1 had completely run out of water, both were very tired, and I had concerns about them continuing on the very steep snow on the backside traverse to the base of the climb. There was also snow on the scramble pitch between pitch #2 and #3 that was a strong concern of mine to have them on it. Co-lead (mentored leader) made the call to turn the group back, a call I was strongly in favor of and considering regardless. We let the students know their conditioning, skills, and general preparedness for the climb were inadequate and the main reason we were going back after the group took a lunch break. I gave S1 the remainder of my water for the trip back. Due to the moat starting to appear at the top (there was a small step of snow you could still go up but it was deep on both sides of this step) and to practice climbing skills, we set up a rappel and had them rappel down. I went first and then fireman'd the students on rappel. S1 went first and immediately fell into the moat, ta	Being a regular basic climb open to general sign up, I can't say I would have done much different as far as who should have been allowed to sign up. All were "on paper" qualified for the roles they signed up for but the two students clearly were not physically or skill wise prepared for the day. They may have just had first climb nervousness as it was their first rock climb and first climb since an accident last August. I want to note that co-lead did an EXCELLENT job as a mentored leader and showed he clearly is able to run a climb and deal with issues safely and effectively. He will make a great climb leader when he gets approved for that status. Assistant Leader lessons learned: there needs to be some sort of communication between branches of the Mountaineers so students cannot slip through when they have failed at one branch (in this case twice) and still make it through in another branch. This sets the trip and the leaders up for failure and serious safety issues.	Conditioning Skill

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				the day after would not have passed, in my book. It seemed almost as if they had not practiced glissade at the fieldtrip, or at least S2 had not.	
				not practiced glissade at the heldtrip, or at least 32 had not.	
				Further on the descent, S2 slipped on easy snow terrain and slid into a tree well.	
				S2 was unhurt but I required everyone to take out and use their ice axe for the	
				remainder of the descent. S2, due to still poor glissading and arrest skills, was	
				asked to plunge step (there were trees in the glissade run out you would have to	
				stop before). S2 did not seem to know how to plunge step and co-lead and I	
				coached S2 on it to where S2 was doing it successfully and with no safety issues. Adding to the issues, P2 made several broad statements to the group about one	
				gender not being physically as capable as another regarding carrying ropes and	
				general strength at the time we took the ropes from students on the approach.	
				This upset several of the party and P2 was definitely out of line.	
				P was upset about the trip in general enough to ask if I was ok with P submitting a	
				complaint about the students and P2. I provided P with the information on how	
				to submit one and encouraged P to do so if P felt that strongly about it.	
				Co-leader input: problems on this trip included:	
				1) lack of ice ax knowledge, use, or awareness, for general snow travel and	
				glissading	
				2) S2 somehow got on this climb even though other branches had SERIOUS	
				concerns about S2 safety and skills. I am wondering how S2 passed evals and if so, we need to reconsider our evaluators	
				3) students ran out of water by 9 am.	
				4) S2 fell into a tree well while traversing on a boot pack as the 4th person. S2	
				also was not able to arrest during glissade.	
				5) S1 jumped into a glissade with the wrong ice ax positioning.	
				6) Both students on this climb were not conditioned and were unable to take	
				group gear including ropes. They not only could not keep up with the group, but	
				they were also unprepared for taking any gear and were complaining about	
				having to take the ropes. This (rope issue) is not an immediate safety issue, but their lack of conditioning IS a safety issue.	
May- Winter Minor	Slip, Fall,	ice axe	Snow -	We had a minor injury while glissading off a north facing 35' slope from 6800' to	Practice glissading on easier slope in ski area, to build student Ice Axe
18 Scramble	Capsize	arrest	steep, ice	6400' after summiting Silver King. First student, S1, let go of the spike of the ice	confidence in controlling glissade. Teach pattern of action
	'	needed /	axe, poles	axe with left hand, lost control and hurt left wrist. No swelling, full range of	phrase "Helmet on strap on. Strap off helmet off." Reinforce
		attempted	recomme	motion, no loss of sensation in fingers. Reported pain level from 8 subsided to 4	w/ students. Double check before letting glissade.
			nded	(scale of 1-10, 10 being worst) Incident happened 300' into glissade. Wet heavy	
				snow may have contributed to likelihood of injury after losing control. Helmet	
				was not strapped on, came off and slid to bottom, one member of the team	
				brought it back up. Luckily no injury from loss of helmet. Participant chose not to seek medical attention, chose to monitor injury overnight.	
				Possible contributing factors:	
				- previous glissaders may have hardened the path, increasing risk of flipping over when heels dig into snow, and increasing strength required for controlling the	
				braking ax	
				- relatively steep terrain may have increased speed and risk of flipping when	
	•	•	•	· · · · · · · · · · · · · · · · · · ·	

						braking with feet - (unknown) physical strength and experience of the unsuccessful glissaders S1 stated that left wrist was in pain mainly near thumb. Also stated left elbow was in pain. Refused any pain medication. We iced the joint and had S1 hold left arm to chest to ease the pain. We asked if S1 would like us to secure arm but S1 declined. At this time S1 admitted that had failed to buckle helmet strap and that S1 let go of ice ax with one hand causing left hand to roll under body as S1 lost control.		
May- 18	Winter Scramble	Minor	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	Assistant Leader went head over heels about 400 feet down glissade and hurt left knee. Pain level reported at 6 (scale of 1-10, 10 being worst). Mobility in all directions possible without increased pain. No immediate swelling noted. We had a knee splint AL used, and two Ibuprofen reduced pain to an awareness. Walked out w/minimal assistance. Did not choose to seek immediate medical attention, chose to monitor injury overnight AL's words: I injured myself during a glissade. I felt fine about doing the glissade, and everything felt in order during the glissade itself. However, shortly after I began the glissade, I began rolling down the hill and was able to self-arrest quickly. I began to glissade again and was breaking with my ice ax, still feeling fine about the speed I was going, when I think a combination of things happened. The snow that day was soft and slushy because it was a very warm day. Fairly large roller balls, bigger than a soccer ball, were at various places in the chute. I believe that as I was braking with my ice ax, I unconsciously dug a heel in and then hit a rollerball with my foot which sent my left leg flexed and twisted out to the side. This caused me to begin to flip and somersault down the mountain. My knee was in a lot of pain but I was able to successfully self-arrest and then I self-belayed the rest of the way down the hill due to knee pain. Not be able to safely glissade because of my knee. As a nurse, I self-examined my knee and determined I was able to walk out.	Braking with heels likely caused cartwheel during glissade (twice) as well as Chunky heavy snow on slope. Wrong technique for snow conditions, in my opinion. I would not have had knees bent or feet flat. Speed was controllable with just the spike of the ice ax. AL words: I believe I underestimated the speed of the glissade because of the conditions of the snow that day. Up until that point the snow had seemed so slushy that it was very slow. Because it was so slushy yet I was going so fast, even though I felt fine about the speed I was going and was having fun, it was difficult to brake with my ice ax. I had not glissaded in snow like that before and it reacted differently than I expected, especially with the intermittent roller balls. I believe my injury occurred because of a personal mistake/accident in previously unencountered conditions.	Ice Axe
May- 18	Climbing	Minor	Illness or Personal issues (conditioning , lack of skill)	lack of skill, preparatio n, conditionin g, fatigue	Snow - non- technical	One participant was completely unprepared for this trip. The participant called me a few days prior to the trip expressing concerns about fitness. But, because P was a valued participant on a prior trip, and said P had recently done some conditioning, I encouraged P to come on the trip and at least try. I was unprepared for how behind on conditioning this participant actually was. The objective was moderate (the Tooth, carrying just daypacks, and starting in nice cool weather). I led a moderate pace to start, and then sent the rest of the team ahead to keep a crawl going with the participant. But the participant was vomiting and by the time we reached Great Scott Bowl it was apparent P could not hold down water while exerting self at all. I made the decision to allow our other two ropes to continue while I stayed with the unprepared participant at Great Scott Bowl. This was in addition to the fall reported by Assistant Lead earlier this morning	We need to continue encouraging conditioning. The unprepared participant was vomiting, and so I thought it to be most prudent to stay with P, even though P might have been able to wait in Great Scott Bowl alone. P ended up being fine but I did not want to risk P deteriorating further on own. Of course, the situation was exacerbated when we ended up having a fall on the route, which I was not able to assist with. On the one hand, it could be considered fortunate that our other two ropes appear to have managed the situation very well. On the other hand, I had great faith in the strengths and abilities of the other rope leads and participants, all of them, and would not have been so quick to let a less experienced group continue without me. But ultimately the team had to respond to an incident with one hand tied because a student was unprepared for a very accessible day climb. Going forward I will better screen the fitness of my participants to lessen the likelihood that this occurs again. Finally, it is worth mentioning that the	Conditioning

May- 18	Climbing	Significant	Illness or Personal issues (conditioning , lack of skill)	rappel	rock - technical, rope & protection needed	INSTRUCTOR First, this is not about safety arrangements. All stations were prepared in a very safe way and instructors/leaders were very serious about it. One student was getting ready to begin rappelling and suddenly something snapped in right calf. S could not continue rappelling. S was at the very top, so S was dragged back to the flat area (by instructors, in a safe manner for all parties). S was in pain and could not walk, although the injured calf did not look different from the other one. Since S could not make a step, it was decided to escort S down (using the trail) to the car and take to emergency. A group of 6 was assigned to proceed with the plan. After bringing S to the parking, two climbers from the party took S to the emergency. The whole situation was NOT life-threatening. All groups were able to continue as planned. From the patient report: Lower right leg injury. Suspected torn ligament. Witnessed. Patient took 400 mg ibuprofen. Treated with cold pack RICES. Pulses above and below injury site. Evacuated to car and transported to Quincy Med. PARTICIPANT	participant took responsibility for lack of fitness and pledged to do better before P goes out on more club trips. I do believe P to be a person of great character, capable of better, who will become a great teammate once again. INSTRUCTOR Incidents like this are extremely hard to predict. The person was in a good physical shape and did not do anything wrong while working through the course. Student indicated had been training a lot recently. Potentially, and this is only a guess, it may be an over-training issue. PARTICIPANT There was no way to predict or avoid the torn calf muscle. I did not do anything wrong; it just gave out. The best part was the response of the MOFA team, the volunteers and the caring attitude of all of my fellow students. Everyone was genuinely concerned about me.	
						During my first rappel when I was all roped in and started to walk down the wall, I heard a loud pop come from my right calf. When I tried to put any weight on it my pain level went from a 0 to a 9 immediately. I was close enough to the top of the cliff that I grabbed onto the ledge and instructors pulled me up. I screamed and writhed in pain, and then they carried me to the medical tent. After some discussion it was decided to carry me out to the cars and drive me to the medical center in Quincy. Five different volunteers took turns carrying me in various positions until we made it out, about 2 miles, to the cars. Two volunteers drove me to the hospital where I received pain medication, crutches and an ace bandage on my calf, with instructions to rest and see my doctor on Monday. The volunteers then drove me back to the Field Trip site where I could meet up with my other classmates and my ride back to home.		
May- 18	Climbing	Near Miss	Hit, Struck, Cut	hit/cut - natural object	rock - technical, rope & protection needed	On the descent at the base of the gulley at the final rap station, a party of 5 was at the top of the gulley setting up their rappel and knocked a basketball size boulder loose. Everyone was yelling "rock" and had time to duck and cover around a corner of rock. A piece of rock ricocheted into the corner I was tucked into and hit my helmet hard enough to leave a piece of rock embedded through the shell. It was a glancing blow; I didn't feel the impact but heard it. No harm done but would count it as a near miss.	I would make clearer in the future of the potential for rockfall and make sure people didn't linger at the base as well after the final rap as a precaution.	Rockfall
May- 18	Scrambling	Significant	Slip, Fall, Capsize	ice axe arrest needed / attempted	off-trail, cross- country	A person in our party bumped into ice ax descending a steep dirt slope and cut leg. Our first aid lead cleaned and closed the wound with steri-strips and covered with band aids. P walked out without incident. First aid lead recommended P get stitches once back in town.	Had P stashed ice axe before descending the slope it could have been avoided.	Ice Axe
May- 18	Scrambling	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	Snow - steep, ice axe, poles	Participant: On our way to find a spot to glissade, there was a spot where the snow was clearly weak and you could see a hole. I stopped and didn't feel good about it but decided to step into a footprint someone ahead of me had taken. My left leg fell down two to three feet and I heard my knee pop as my torso fell left	The transition to rock to snow can be tricky in spring. Not sure how to prevent this, other than being on the lookout for existing holes, or looking for a different path if needed.	Snow travel

					recomme nded	onto a steep downhill slope. The only thing holding me put was my stuck leg. I used my ice axe to get myself up and back on my feet. A meniscus tear is a weird thing because it's serious, but thankfully, it's not super painful. You just know immediately that your knee is not as stable and weight should not be placed on it. Hopefully there's not a next time for witnessing someone with this injury, but now you know what it looks and sounds like!	
May- 18	Climbing	Significant	Illness or Personal issues (conditioning , lack of skill)	injury/ illness - sudden onset	Snow - steep, ice axe, poles recomme nded	After about 40 minutes into the trip participant had shortness of breath. After checking, S heart rate remained high. I determine that the complete climbing party should turn around. S pack gear was carried out by other members of the party and S walked out. S seem ok at the trailhead. As S drove one of the other members of S carpool drove. S did see doctor later that day.	
Jun- 18	Climbing	Significant	Slip, Fall, Capsize	fall (travel a distance)	rock - talus, boulders, scree	This is in the words of the person who fell. My words are added in parenthesis. The accident happened on the descent to the forth rappel station (above the chockstone) on Yellow Jacket Tower. I went down too far on downhill slope to be able to cross a fallen tree. In an attempt to go back up too crossing location, I grabbed a branch on the fallen tree to pull myself up. The branch snapped off causing me to fall in a direction of downhill slope (about 5') landing on my right arm, however, felt a bit off with slight limitation in motion but no dislocation as far as we could tell. I was still able to use the right arm to stabilize myself as we made our way out but could not use the arm to bear weight. Leader advised me to use my left arm for rappel which I did. What Doctor said so far: urgent care doctor at UW medicine in Ballard did an X-Ray and concluded that there are no bone fracture or break. The doctor suggested that the injury is a shoulder sprain. He prescribed a shoulder sling and referred me to see sport medicine doctor for further diagnostic.	
Jun- 18	Scrambling	Minor	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	I was leading an Experience Field Trip make-up for some scrambling students at Bean Peak. We dropped to the backside of Bean Peak and had just arrived at the top of a hard snow field for ice ax arrest practice, Student (S) lost balance and fell down the slope, S was able to arrest but complained of a sore shoulder after the fall. S still had full mobility of the shoulder without any restrictions. S had not really been exposed to hard snow and should have paid more attention to stance while on the slope, and I should have pointed that out to all of them sooner. It was a good lesson for all.	Ice Axe
Jun- 18	Climbing	Major	Slip, Fall, Capsize	fall (travel a distance)	Snow - technical, glacier, rope needed	We climbed Snowfield as a two-day trip, with each day taking a little longer than the route description's estimated time window because of a party member (P) lack of endurance and lack of comfort traversing steep snow or finding good footing on rock. We relieved P of group gear within the first hour of the hike in, and then I also carried P picket and ice axe because P was falling far behind the rest of the group and taking frequent little breaks. P informed me that P hadn't been hiking the last couple of months because P'd hurt knee in a fall descending Tenerife when it was icy. We reached our camp at 5400' in seven hours. After dinner I talked with P about the distance and speed, we would need the next day and P emphatically said P wanted to summit. I should have made P stay at camp as I had intended, but P seemed very energetic. Sunday morning, we got a later start than we should have, 5:15, and made our There are many things I would have done differently in hindsight. I did screen my climbers for fitness for this climb, and participant's list of hikes looked adequate but P didn't tell me that conditioning had ended a couple of months previously. Upon learning of that and observing pace on the hike to camp I should have insisted that P stay at camp instead of summiting with us. P did actually fall once on the snow traverse into Colonial Basin and failed to arrest immediately. We were doing alright on time when we got to the Snowfield summit pyramid, but then the scrambling took more time because there were two other parties, and I could	Conditioning Skill

way to Snowfield by 10, but because of traffic in the gullies we weren't all on the summit until 11. Downclimbing the gullies also took time, and then the participant continued to take more hesitant steps and fall behind the group as we descended the rocky trail back down to the glacier. P was also very hesitant and fearful as we traversed the steep slope between Colonial Basin and the Pyramid ridge and I walked right behind P, encouraging P and giving P tips on how to walk in the boot path to minimize the danger of blowing out the steps. We made it back to camp an hour later than I'd planned, packed up, not leaving until 4pm. Everyone was feeling elated but tired with the work of the day so far, but I figured we could descend to the cars in about three hours. About 20 minutes into the descent (at ~4:30), traversing a knob of snow at ~5200', P slipped, slid about 10 feet down the snow and into a moat between snow and rock. P impacted right heel and sprained ankle, not hitting anything else because pack protected back and head. P was using a pole at this point, as were a couple other members of the group, while a few of us had axes out because we didn't bring poles. None of us had helmets on. The snow was very slushy and there were many footsteps from the 30+ people that were in the basin during the weekend.

After assessing participant's state of health, nothing hurt besides ankle. I got out P's ice axe and helped P climb out of the moat. We then kicked steps in the snow so that P could face in and down climb the steep section to a more gradual incline. P did this painfully but could put some weight on the foot. P then took some ibuprofen and we started moving slowly down the snowy trail, with participant mostly scooting on the snow while I brought P's pack. I was hoping that the pain might ease and P would be able to walk without a pack but it didn't. I sent the other four team members down to the cars at ~5pm with instructions to call our emergency contact when they reached Nehalem, who would contact the rangers. Participant and I had our own overnight gear, a filter, and food and water, as well as my PLB. As we slowly moved down the trail, we discussed the pros and cons of waiting to activate my PLB until our team was down so they could communicate the nature of the injury and what gear we had with us. I have a McMurdo Fast find plb which doesn't allow for communication, just an alert with coordinates. We decided to activate the plb at 6:30pm, and soon after came to a large rock where we could rest out of the snow and in the open. We stayed there for the night, with participant in all of P's clothes and sleeping bag and a pad, with P's feet elevated. P was exhausted with the stress, activity and pain of the day and slept most of the next 12 hours. P took boots off before getting in sleeping bag and the right didn't look significantly swollen. In the morning we examined it again and it wasn't swollen, and P could put it back in boot with pain.

By 9 am with no contact from SAR we started to contemplate moving slowly down the trail again, when at 9:15 I heard the helicopter. We got back into the open, got the attention of the helicopter and it circled us for 5 minutes. It then flew back up the ridge, and about 20 minutes later a couple of rangers reached us. They did a health assessment of participant, splinted leg, and we helped P move back up 30 feet to an open area. The helicopter then came to extract participant on a 200' long line with the rangers since it couldn't land there, and then fly up the ridge to a spot to land and move everyone inside before flying to

have turned us around then. Once we were back down on the glacier, we also made steady progress back to camp until the traverse from Colonial Basin back to Pyramid ridge.

Participant slowed down significantly, in fear, taking about 35 minutes while everyone else took about 20. I coached P through it and we talked about lack of experience on snow as we walked back to camp. I should have made sure P had axe out when we left camp though, considering that we still had more than 500' of elevation to drop in slushy snow with very tired climbers.

It didn't occur to me at this point to ask everyone if they wanted to camp another night instead of hiking out. I knew everyone was running low on food and were expected at work the next day. This would have been a good option to consider though, as I could tell everyone was pretty tired and the trail down is a fairly technical climber's trail even below the snow. After they left us, the other four didn't get reach the cars for another four hours because of fatigue, and one of them could easily have gotten hurt too.

All in all, I think this was a bad combination of a very strenuous trip where everyone was carrying heavy packs, including distributing participant's group gear, we didn't get as early of a start Sunday as we should have, and also the length added to each day by waiting for participant, with his lack of endurance, and comfort in his footing on snow or rock contributing to his exhaustion and fall.

						the Marblemount Ranger Station. I then hiked out, drove to Marblemount and debriefed with Ranger before driving home. Participant's friend had already picked P up in Marblemount and they drove to a medical facility and determined that ankle was sprained with a recovery of six weeks.		
Jun- 18	Climbing	Safety Concern	Other	party issues - conflict, misunderst andings, organizatio n	gym, artificial climbing walls, sports area	I witnessed another student belayer using a strange belay action, taking their brake hand off of the line, not consistent with Pull-Brake-Under-Slide. I approached the belayer and pointed this out, to which the belayer responded that instructor climber was off belay, as the climber was setting up a top-rope anchor and was currently tied in from above. We had a short discussion, where I mentioned that using the same motions when on belay or off is possibly appropriate. It is possible that the instructor climber heard our discussion and heard "on belay" and assumed they were on belay. The instructor climber began descending as though being lowered without the belayer being aware the instructor climber was doing so, and without the student belay having a hand on the brake line. We both heard the climber shout "Slower! Slower!", looked up, and saw the climber descending rapidly. The belayer put hand on the brake line and caught the climber, who then entered a controlled descent. Had the belayer not caught the climber, the climber would have impacted the ground at a speed sure to cause injury.	The climber and belayer should absolutely use names during climbing command exchanges. The explicit use of names would have prevented this incident. Use of the word "on belay" should be solely between the climber and belayer if possible. This may or may not have prevented the incident. While a climber is above, a belayer should continue to assume the climber may need the belayer's assistance, up to and including holding the rope in the brake hand, despite knowledge that the climber has called "off belay". Having a discussion with a belayer might distract the belayer at a critical time. However, pointing out immediate apparent safety issues should still be encouraged.	Skill Judgement
Jun- 18	Scrambling	Safety Concern	Logistics, Equipment Issues, Party Issues	party split	off-trail, cross- country	Group member (GM) fell behind and got lost on a difficult section of route. Participant yelled to group and we went back to find GM. We thought GM was hurt at first but turned out only to be lost. GM had not started with the group after break/and/or stopped to pee without telling group/next person. The incident happened more than once with the same team member.	Each member of the party has a responsibility to the group and themselves to communicate stopping for a bathroom break, keeping pace (or asking for a change in pace) and staying with group. The incident was unlikely by itself to cause injury but could have if the team member got off route and into trouble or resulted in the group searching for the team member etc.	Conditioning Party Separation
Jun- 18	Climbing	Near Miss	Slip, Fall, Capsize	Slip not resulting in a fall	Snow - technical, glacier, rope needed	A climber fell waist-deep into a crevasse. The crevasse was fully hidden by snow and not detected until the climber punched through. Climber was caught by the crevasse itself and ice axe. Helped out by the next rope team lead with no injury. Crevasse flagged with wands.	N/a - it was undetectable with no visible signs from the outside.	Snow travel
Jun- 18	Climbing	Significant	Slip, Fall, Capsize	hit/cut - equipment, tool	off-trail, cross- country	Scrambling through a wooded patch between snow routes, so ice ax was out, and climb mate slipped on wet log, causing the shaft of the ice ax to hit forehead, which in turn caused the top layer skin to split open (a vertical line about an inch long), and some bruising. We cleaned and dressed the wound, and the climber opted to finish the climb, which we did. Upon returning home, I took C to an urgent care, and they cleaned the wound more thoroughly, and applied some glue to encourage wound sealing). They agreed that it was a pretty minor wound. Though, it could have been a lot more serious (the shaft of an ice ax is kind of the least dangerous part).	It can be hard to know when to put away the ice ax, like when scrambling through small breaks in a snow route, it can seem more fluid and efficient to simply keep the ax in hand. However, were the ice ax not in hand (it certainly wasn't needed for this small patch of wooded scrambling), the injury would not have occurred. So perhaps being more aggressive on temporarily stowing the ax between snow routes would minimize this kind of risk/injury. However, such an incident could easily happen on the snow as well, where the ice ax is needed.	Ice Axe

Jul-	Scrambling	Safety	Other	route	off-trail,	I led Alta/Rampart scramble and I had to use the rope (it was 100 feet of 7mm	Think twice before going up something which would be	Judgement
18		Concern		conditions,	cross-	static cord) to protect myself to downclimb a short section. We had whiteout	challenging to downclimb. I knew this before going up, but	
				route	country	conditions which made it more difficult to navigate. About 100 feet below the	it's very easy to keep going up when you're motivated by the	
				finding,		Rampart Ridge's high point, we came to the rock wall which I thought was in the	desire to find the route.	
				lost,		direction we needed to follow. The description of the route does talk about short		
				overdue		more technical rock section below the summit. There was a gully with, I'd say,		
						two climbing Class 3 moves. The run out was about 15 feet of sloped rock and dirt		
						ending in a snowfield. Not life threatening, but enough to get injured.		
						Since we didn't see any other immediate options I decided to go up and scout the		
						route (with the idea to setup a fixed line if that's the way for all of us to go). I		
						instructed other participants not to follow me and wait at the bottom. I climbed		
						up without any issues but discovered that I was on top of an isolated bump and		
						our route should actually go in the opposite way. I communicated it to the team		
						and searched for an easier way down. The ascend path looked like the easiest		
						way down. It wasn't impossible for me to downclimb it without a fixed line, but I		
						decided to be extra safe and set up protection.		
						I found a good tree above the gully, wrapped the rope around it, tied the knot at		
						the ends of the rope and used diaper harness to attach to both strands of the		
						rope with the prusik. I downclimbed the section without problems while sliding		
						the prusik down. When in a safe place I was able to pull one of the strands to		
						retrieve the rope.		
						Contributing factors: unfamiliar route, whiteout conditions, desire to move		
						forward, underestimating the difficulty of the rock moves.		
						Good: Had the rope; Decided to use the rope even though it wasn't absolutely		
						necessary; Told other participant to wait below and not to follow.		
						Bad: If there were no good anchors at the top, the situation could become much		
						worse; 7mm cord is reasonable for scrambling, but it only goes so far: could be		
						damaged by the rock or fall; wasted time (40 minutes?); it was a wet day and		
						since the rest of the group were waiting without moving they got cold.		

Jul- 18	Backpacking	Near Miss	Logistics, Equipment Issues, Party Issues	equipment issues	Snow - non- technical	Leader slipped for about 15' on a snowfield. I was leading a team on the Sloan Creek to Glacier Peak Meadows on July 6-8th. The plan was to camp on July 6 at White Pass and then to move camp to Glacier Peak Meadows on July 7. This based on a past trip (July 4th 2015) where there was no snow at all. When we arrived at White pass there was a storm passing through. In addition, looking to the north side of the mountains it was quite clear that there was still a considerable snowpack. So, we changed the plan, deciding to stay at White Pass and day hike at Red Pass in the afternoon of July 7th as the weather was expected to improve. So, we moved together and just few hundreds yard from Red Pass we find two small (15' wide the first) patches of snow on the trail. As I was leading, I started to kick steps in the first one. At the 4 or 5th step I slipped on the snow below the trail. I rotate immediately face down and I was able to stop at about 15' from the trail (my estimate). I didn't sustain any injury. So, I moved on the side out of the snow and I started to climb back to the trail. That is where the real problem started. I couldn't get grip with my fancy Asolo shoes. One of the group came down to take my pack This person is a great scrambler and had no problem to go back to the trail. While it took a lot of time to me, one inch at the time, until some people in the roster was able to pull me back on the trail. Fortunately, the only broken things were my fingernails and my pride. We went back to camp.	Be wary of beta when weather conditions have changed. Also, be prepared to increase traction on shoes / boots with micro spikes or crampons. Moving forward, I will require mandatory micro-spikes in case of snow. This time I left them optional. At the trailhead as only half of the team had them, I decided to let them in the car to make sure we wouldn't take too risk in case of snow. I was clearly wrong.	Snow travel
Jul- 18	Climbing	Safety Concern	Other	rock fall, rock movement	off-trail, cross- country	During the ascent to the base of the Banded Glacier, a natural choke point forced the party to the center of the fall line for a few minutes. At this point a boulder from the rock band above spontaneously detached, and rolled down the fall line, narrowly missing the closely spaced party. Fortunately, it was spotted by a party member early, and we had sufficient time to take evasive action. The boulder was variously described by party members as 'cow sized' and 'like a smart car'. Personally, I estimated it to be a compact dorm sized refrigerator. it probably weighed 100-200kg and was moving pretty fast by the time it reached our level.	My experience has been that spontaneous rockfall such as this is often induced when sun first hits the area concerned. Had we been able to make our original launch time of 0430, this area would still have been in shade and the situation avoided. Also, when in a choke point such as this, keeping a good lookout should be paramount. If we had not been able to avoid the rockfall, this would have turned into a major incident with a helo evacuation. We did have a PLB, but it was good not to have to use it.	Rockfall
Jul- 18	Backpacking	Major	Logistics, Equipment Issues, Party Issues	party split	off-trail, cross- country	I called 911 to report one of our 11 backpack trip participants had not returned from Point of the Arches following a walk there to observe the sights at low tide. Everyone had returned to camp except for the missing person and me. I had waited a half hour at the east end of the point looking for the missing person before heading back to camp. After I arrived, I called the participant's cell phone number and looked in their tent. I got voice mail message on the cell phone and found nobody in the tent. No one else returning from the beach had seen the participant recently, but some people had seen the participant 45 minutes earlier. On the numerous other backpack trips, I have led to Shi Shi Beach no one else had ever been that late returning to camp after visiting Point of the Arches at low tide. So I called 911. When we reached the Park rangers on the phone, they asked the rest of us to remain in camp, which we did, over the objection of at least one participant. The missing person returned to camp two hours later. The person had not been on any of my previous trips to Shi Shi Beach and chose to explore the Point of the Arches area beyond the low tide time when I had asked everyone to return to camp. The participant was in good condition had not incurred any adverse effects. The Rangers from the Ozette Ranger Station arrived 30 minutes after the person returned to camp and went to visit the late arriving	When exploring hazardous beach areas at low tide, make clear to the group what time they are expected back in camp and what will occur if they do not return by that time.	Party Separation

						trip member, who by then was resting in tent in the woods.		
						Point of the Arches has numerous rock tunnels that are fascinating to explore at low tide. Once the tide begins coming in, there is a danger of being trapped where returning to shore is blocked by high water.		
Jul- 18	Climbing	Near Miss	Logistics, Equipment Issues, Party Issues	equipment issues	off-trail, cross- country	On day one of our three-day trip, one participant did not secure backpack and allowed it to roll of a moraine near White Pass; we were about to descend toward the base of White Chuck Glacier. The participant held onto an ice axe and helmet. The pack rolled off the cliff in the general direction of our travels so a decision was made to continue toward our first night's camp but send a two-person team behind us about 300 yards and look for the pack. This team remained in our sight at all times.	The participant learned critical importance of securing one's pack in an area where it may roll or slide. Team learned how to build a tent with just rope and hiking poles. Total loss of the pack may have required the group to turn around or at a minimum, leave this person in camp on summit day due to a lack of required gear.	Gear
						Though they did find the pack, the tent poles were missing. This was not noted until we had reached our camping area after a long day hiking in the heat. Due to the time of day and how tired the team was feeling my decision was to not go back and look for the tent poles. With the help of various team members and lots of gear, we made a frame for their tent that survived for the two days we camped at this location.		
						On the way out we passed close to the packs fall location and a second team found the tent poles stuck in the rocks slightly higher than where the pack was located. The pack rolled about 200 feet total and not visible until we came off the ridge.		
Jul- 18	Scrambling	Near Miss	Other	rock fall, rock movement	rock - talus, boulders, scree	As we headed up the loose rock slope at elevation 5800 ft, the faster participants followed a group ahead of us. A member of the group ahead of us was scrambling on all fours and kicked a 10 inch in diameter boulder onto our party, the participants yelled Rock! and it careened over the head of another participant. I instructed our party to suck into the rock and wait until I could catch up. I was trailing with the student who was out of comfort level. I recollected the party and assessed the situation, we all agreed to turn around and find another route down that avoided more loose scree.	Review the route so the party does not follow another party up. From the tracks I downloaded it seemed we were off route. The faster members of the group moved ahead; I should have kept them closer together.	Rockfall
Jul- 18	Climbing	Minor	Hit, Struck, Cut	hit/cut - natural object	rock - talus, boulders, scree	Descending the SW couloir, a 5lb rock was knocked loose by a climber and rolled onto a lower climber hitting his arm. Fortunately the two were relatively close and the rock did not pick up much momentum and no significant injury or break occurred.	Descents in chossy gullies are tricky. Options are to stay close and risk getting bumped by rocks or wait until the route is clear below before descending increasing decent time.	Rockfall
Jul- 18	Scrambling	Minor	Hit, Struck, Cut	rock fall, rock movement	rock - talus, boulders, scree	LEADER: he group was hiking up a gully of loose scree and rock to reach the summit block. One climber in the group dislodged a cascade of rocks that fell onto another climber in the group. That climber, who was more experienced, ducked between two rocks in the shape of a V, hung on, protected themselves and waited it out. C was hit in the head (wearing a helmet), once in the arm and once in the instep. The instep was bruised but thankfully unbroken. That climber went on to the summit and the climber who had dislodged the rocks stayed down in a protected spot with one of the leaders. The injured climber iced and wrapped foot that night and was fine by the next day. CO-LEADER: P struck by falling rocks. Person just above caused the rockfall. There	LEADER: the climber who dislodged the rocks had complained of muscle fatigue after the morning scramble to the top of Gothic Peak. This person was torn about doing Del Campo but felt could do it. As leaders, we could have encouraged this person to stay back. This also occurred as we were route finding so, as leaders we could have scouted the route, while parking the students in a safe place. We were all wearing helmets, and we were climbing very close to each other, which meant the rocks didn't pick up speed. CO-LEADER	Rockfall Conditioning Judgement
						were, I believe, 3 participants traveling closely together on the loose scree, P was	1. I thought I was sure of the route. I did not communicate	

						in middle, just below step. Other just on the step when the rocks slid into/fell on P. P's helmet head, arm, and foot were hit. Separately, another participant had a near miss from rock.	about the exact route with the other leaders. I think I lead people into this gully when it was not at all necessary and not the best way to go. I made assumptions about the route based on what I had studied and heard from others, but I did not check my information with my leader and co-leader. 2. The rockfall injury was not aggravated by people being spread out in the gully. It occurred where people were following closely behind each other. Those ahead must be extremely careful to not knock rocks loose and/or must give adequate warning and allow person behind to get into a safe position.	
Jul- 18	Climbing	Minor	Hit, Struck, Cut	rock fall, rock movement	off-trail, cross- country	A basic student was hit by a large rock at high velocity while approaching the West Ridge of Cutthroat peak. The cause of the rockfall is unknown. We started our climb at 5:45am from Hwy 20, just west of WA Pass. There were no other parties ahead of us. There were two basic students on the climb and me. We made fast work of the trail from the road, through the meadow, and into the cirque. We stopped at the top of the meadow, as the trail disappeared, and put on helmets. We began climbing a steep, sandy gully, to get to the "westerly most dirt gully" which would be our access point to the west ridge. Between 6800ft and 7000ft, with all three members of the team standing close together, a rock flew down from above, nearly silently, and hit one student in the stomach. The flat face of the rock described as being larger in width than the student's abdomen. The student immediately doubled over, having had their wind knocked out. The rock was so quiet that both me and the other student barely perceived it falling. This was the only rock we observed coming down the entire time we were in the cirque. We assessed the student's condition and immediately determined that descent was the appropriate option. The student had a large bruise on stomach and described some nausea, much soreness and later a headache. Internal bleeding was a concern, and after the adrenaline wore off, we were unsure how well the student would be able to move. Luckily, the student was able to walk down totally unaided. We drove to Mazama were we met with a Physician's Assistant. As of Sat. 7:30pm (12 hours post-accident) student is feeling well, all things considered, and has spent the day resting. Student chose not to seek any further medical attention. We were very lucky that the rock hit student where and how it did. A few inches higher or on a rock edge and student would likely have had broken ribs, and any higher than that would have resulted in a potentially major or critical incident report.	I went to the Goat's Beard in Mazama and spoke with someone with a lot of knowledge of the area, and they said that they hear stories "all the time" about people being hit by rocks on Cutthroat. This person emphatically (and vividly) described it as bad place to climb. Both the West Ridge and the South Buttress. In particular, this person described this type of rockfall as common on Cutthroat. Rockfall is an objective hazard of climbing in the mountains, but it is worth considering whether the West Ridge should still be a run as a basic climb. If yes, the approach should be modified to be safer, perhaps approaching from the east.	Rockfall
Jul- 18	Scrambling	Minor	Hit, Struck, Cut	rock fall, rock movement	rock - talus, boulders, scree	The rock in three separate gullies was very loose and in the first gully, it had been raining during the day, resulting in slippery rock as well. There was significant rockfall throughout the trip: one participant getting hit in the leg in the last gully to the summit. One participant did not bring crampons, which led the group to	We should have descended much sooner, especially at the first gully when two students reported they felt uncomfortable ascending the wet, mossy rock. The scramble is rated as a T3 but the route we ascended, is definitely a T5 and I would not recommend it for any student scramble.	Rockfall

						ascent a moat instead of taking the snow finger. This moat contained many loose		
						rocks in addition to being steep, resulting in rockfall and slipping.		
Jul- 18	Climbing	Minor	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	We summitted West McMillian Spire (WMS) around 9:30am. The climb down was on class 3 rock and then onto a snowfield that was between 45 and 55 degrees steep. On the way up the snow was firm and then on our way down the snow was softer with a few firmer sections. We all had crampons, ice axe and helmets on. We slowly traversed back and forth down the snow finger. S slipped but quickly self-arrested so we all slowed down even more. Then S2 suddenly slipped	We all talked about the need to go slow and stay within our comfort zone. Co- lead and I went out front so that the others following would have an easier time staying in our tracks. I think we all could have stressed the importance of making sure your footing is stable before taking the next step as well as a reminder to walk in balance and be sure your ice axe is	Ice Axe
						and fell. S2 said foot slipped and lost balance. S2 stated, they were unable to grab the end of ice axe to self-arrest. S2 quickly gained momentum and was struggling to turn over to self-arrest. S2 slid down the snowfield, on right side, for about 200 ft and hit a talus field/boulder area and slid right over the rocks/boulder on right side. Shortly after sliding over the boulder S2 was able to self-arrest. S2 quickly stood up and said S2 was okay and then slowly moved off the snowfield and onto a boulder area 25 ft away. This happened around 11:00am.	secure in the snow before making the next step. I was in the lead but could have kept more of an eye on everyone and see if they were having difficulties moving down in the snow. Best to have someone in the back that can also keep an eye on everyone and provide assistance if necessary. We all did switch from traversing to face in downclimbing because it is much safer. We could have stressed the option of face in downclimbing at the beginning.	
						The rest of us decided to downclimb facing into the snowfield for added safety. P and I reached S2 first. S2 entire right side, arm, elbow, hip, upper leg looked like road rash from falling off a bicycle. Mostly abrasions with one laceration about 1.5 inches in length located on upper right thigh. The laceration wasn't too deep. We cleaned all wounds with water. Placed bandage on hip area which was the place with the most abrasions. We placed 5 steri strips on laceration and covered it with a bandage to keep it clean.	This fall could have been worse. S2 could have easily broken leg or arm when they hit the boulder area. It is a reminder to all of us on how important it is to have those self-arrest skills and the need to be quick at self-arresting before you pick up so much momentum. Good to practice that skill often.	
						S2 right elbow was pretty swollen and had numerous abrasions on it. S2 was able to move elbow in full range of motion without any difficulties or pain. Initially, had a little numbness in middle and ring fingers but that went away after about 15 minutes. S2 was able to make a fist with right hand and move all fingers without any problems. S2 had a couple of small contusions on lower leg near ankle that was swelling up. We did a full body check for any additional injuries or bleeding and none found on chest, stomach, back, head and face. S2 did not hit head on the rocks and had no complaints of neck or back pain. No loss of consciousness.		
						We made it back to camp and S2 was doing great. S2 said had very little pain and no difficulties walking. S2 was diligent on putting ice on elbow and ankle for the rest of the day and evening, that by the next morning the swelling was down to minimal. No additional bruising or increase in pain found.		
						On Monday, we left camp at 5am to get back to the cars before the heat was unbearable. S2 had no difficulties hiking out, despite the steep terrain. Once at the car, I checked all injuries again to make sure there wasn't any changes. Took off bandage over laceration to make sure there was no signs of infection or that the steri strips didn't come off. Steri strips were still attached and wound looked like it was starting the healing process. No signs of infection. I advised S2 to keep wounds clean and seek medical help if any signs of infection and/or any increase in pain or problems with elbow, hip or ankle. S2 stated will see how feels once at		

						home, but at this time said feels like everything is okay and doesn't think needs to see doctor.		
Aug- 18	Backpacking	Major	Slip, Fall, Capsize	fall (travel a distance)	trail	A participant placed weight on their right pole on the side of the trail and the trail side gave way, leading to them tumbling down a roughly 65-degree slope about 30 feet back to the trail (we had just started descending switchbacks). The participant is physically large and had a 40-pound pack, so they had considerable momentum. Fortunately, the slope was very brushy and dirt with few rocks, so the fall was considerably mitigated. The trail itself was somewhat rocky and hard and might have contributed to injuries.	nothing could have been done to avoid the incident. The participant made a simple mistake that they know to not do and in the course of many years of being on trails had not made despite probably millions of such steps. Our response proceeded very well. We were fortunate in that	ail nav
						WFA designate was at or near the lead of the group, assessed the scene for safety and determined that the participant was on the trail so we followed the trail to P. There was considerable blood on the trail, the participant's clothes, and head. WFA designate put pressure on what appeared to be the main head wound. I	weather and timing were pretty much ideal, the participant is very strong, and they have a high tolerance for pain and a strong will. We were also fortunate that the Sherriff's office so readily used a helicopter and EMT to assist.	
						took that over so that the WFA designate could perform other WFA duties. The participant was conscious and seemed coherent. Breathing and pulse were good. The participant complained of considerable pain. We did a quick C-spine assessment (the participant was laying on their side so their back and neck were	I'm also pleased I had a PLB and lots of first aid supplies (and the rest of the group had a good amount too). Having a doctor on the trip was wonderful. I believe I would have treated the participant similarly given my WFA training but	
						readily exposed). We saw no cause for concern in that regard. We had considerable difficulty stopping the bleeding but it turned out the main reason was we didn't correctly find the location of the wound itself. The flow and hair obscured the true location. After about 10 minutes we did get the bleeding to stop. The blood loss was substantial but far from being life threatening. We	the WFA person's expertise meant that we had little doubt about our decisions. Having two sets of hands with relevant training surely helped (though I'm sure WFA person would have managed wonderfully with anyone's assistance). Passersby (of which there were many) were very cooperative	
						further assessed injuries and determined the left wrist was the worst, with considerable swelling and great pain. Right knee also had very substantial hematomas (WFA person was confident it was a hematoma from professional	and did not seem to have adverse reactions. The experience with the PLB was instructive. A clear view of	
					b	experience; I couldn't say). The participant had a number of other abrasions and bruises but nothing serious. There was a small wound above nose and its bleeding was also difficult to stop but the amount of bleeding was minimal.	the sky is important so I'll make a point of that in the future. The communications between the PLB people and search and rescue and my primary contact (my wife) was also very considerable (10 phone calls in total). They were very pleased	
						We were able to move the participant into a more comfortable seated position and soon carefully test their legs to see if they could bear weight. They could and the participant was keen to start evacuating but we stopped that (we were far	to get extensive details on our trip from my wife, along with details on my training, etc. That reduced a lot of confusion and stress for them.	
						from being ready for that). The participant's right arm was also able to help get up, etc. We continued to assess, including further testing mental state. We bandaged the participant's head wounds effectively, put a splint on their wrist with a sling, and bandaged their right knee. We also cleaned the participant up as best we could and the area.	There was room for improvement in that we could have been more complete in following head-to-toe and patient assessment procedures. We did quite a good job of them but found later those mistakes were made. Fortunately, they	
						By 10:40 we were confident we understood the participant's injuries and abilities and while we thought they could be mobile, we doubted they could make it all the way to the trailhead. We had about 3 more miles to go to the trailhead, there	were not consequential but in different circumstances could be. I'm sure the significant bleeding was the biggest contributor to this issue (we were rushing to stop it).	
						would be a couple of tricky stream crossings (tricky for the participant's state), and the trail was often narrow with poor footing. So, I decided (with the consensus of others involved) to use my Inreach Messenger to signal an SOS. Due to tree coverage, we didn't actually start texting with them until 10:52. We	I found that my requests for group assistance were not followed as well as I expected at times. In retrospect I believe I should have been more specific in asking specific people to do a specific task with some details on how to do the tasks	
]						expected that at the least Search and Rescue could start getting organized and meet us part way if need be.	and then watch to ensure they start doing them. There were no real negative consequences in this case but if weather or	

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						By 11:30 the group was moving again and we soon found the participant could make quite good progress. Their gear had been split amongst 4 people so they had no load (but was using a pole) and others (including myself) were not too overloaded. The participant was in good spirits and clearly very active mentally. We were mostly in trees so the Inreach messages were delayed but were working. We found out the Sheriff's office was involved. Somewhere around 12:30 a helicopter came into our area. They couldn't see us due to the trees but as it turned out they lowered an EMT to the ground and by talking to passersby he learned that we were below. He came down and further assessed the participant and the situation. EMT had radio contact with his control base, etc. He continued with us as we walked the participant out. A helicopter evacuation didn't seem needed and there was another issue it had to attend to. It also needed maintenance before long but we could have arranged a helicopter evacuation if needed. The EMT agreed our medical assessment and treatment were appropriate and sending the SOS when we did was appropriate. By about 1 PM we were at the road that is the first part of the trail. About 15 minutes earlier the participant had become considerably less responsive. The participant was still moving but a little slower. The participant was answering questions well but had seemingly become mentally exhausted from the day's events and the pain. The EMT had been trying to arrange a vehicle to come get the participant and within 5 minutes it did so. They provided a quick ride to the trailhead where an aid car (ambulance) was waiting. Two more EMTs further assessed the participant and tried to talk them into using their services to go to the nearest hospital. They were concerned because the participant had head injuries. The participant made that decision on their own in discussions with EMTs. Other than the aid car EMTs, we were all reasonably comfortable that declining their services was not a serious risk. Around	other conditions had not been favorable there could have been complications. This is a part of group dynamics that I was familiar with in theory but didn't apply properly. There was an element of 'fog of war' throughout the whole incident but IMHO that is to be expected. Taking time to keep everything perfectly organized, review procedures, review options, etc. could lead to other issues.	
Aug-	Backpacking	Minor	Slip, Fall,	Slip not	water -	On the 4-mile RT day hike from Big Dewey Lake to Anderson Lake, one person,	Checking footwear in advance of a day hike. Monitoring new	Stream Crossing
18			Capsize	resulting in a fall	stream, creek, river	who is a new hiker, slipped on a wet rock at a stream crossing and fell down, hurting a shoulder. I provided some cream for the shoulder before we backpacked out. The hiker made it out without further incident. The hiker wore sandals on the day hike, which may have contributed to the fall. On the backpack in and out the hiker wore hiking boots.	hikers more carefully when crossing streams.	
Aug- 18	Climbing	Major	Slip, Fall, Capsize	fall (travel a distance)	rock - technical, rope &	40-50 ft leader fall. Afterward, doctor found broken ribs, sternum, and wrist, as well as air in the chest.	Attendant clipped a loop of rope to climber's belay loop and ascended to the anchor. At the anchor, others created a 6:1 drop-loop haul system and began pulling P to the anchor. P	Gear Skill

protection needed

We were climbing the South Face of Concord. A participant was anchored at the base of the shark fin on the South side. Another participant was leading the third (final) pitch and was ascending the "5.8 awkward flaring crack." P was out of view from the rest of the party. According to P, P was attempting to pull onto the summit of Concord Tower, when the alpine draw from last piece of protection clipped onto leg loop preventing further upward progress. While attempting to unclip this carabiner from leg loop P fell, pulling with the protection piece (pink tricam). P had placed another tricam into the same horizontal crack to aid-climb with but had not secured rope to this piece. As P fell, P screamed loudly enough that the whole team heard. As P screamed, the belayer moved backward as much as tether to the anchor would allow and braced for the catch. We believe the climber fell approximately 20 feet to the ledge at which last piece of protection (after the pink tricam pulled out) was located (this piece was a slung tree). It is here that we believe the climber landed on wrist and back, then continued to fall/slide/roll down slabby ramps another 20-30 feet until rope became taut. The time was approximately 3 PM.

After the belayer completed fall arrest, B pulled rope through belay device while progressing to the crest of the shark fin. B called to P to ask if ok. P said had broken wrist. A party across from the route, on Liberty Bell called over and said that P had landed on back. Belayer acknowledged P's probable broken wrist and asked about any other injuries P might have sustained. P seemed lucid and is a trained EMT. At this time, belayer could not see climber. Climber requested to be lowered a few feet so that P was resting on a ledge, and belayer lowered P. The party on Liberty Bell asked if they should call 911; climber responded to them and declined their offer. Belayer asked climber if P, provided a fixed line, would be able to ascend. P said would be unable. Belayer descended from the shark fin on the South side back towards anchor and called to second rope team who were still approaching on the second pitch. After a few minutes, second team arrived, they had heard climber's scream but were otherwise unaware of any situational details. Belayer described the situation as was known and the three formulated a plan of action.

Second team climb together frequently and work together fluidly, for this reason belayer and another party member exchanged places, the other taking over belay (easy as there was some slack in the system with climber sitting on the ledge). Other two prepared to climb to the base of the summit block. One called down to climber letting them know they would be there within ten minutes. Another led out along the shark fin, arrived at the base of the summit block slinging a tree for an anchor (the same tree that had become P's last piece). Another followed the short pitch. One of the pair fixed one end of their rope to the anchor and another rappelled down to P. Once they reached P, attendant checked P's torso and back for injuries. P complained of some pain in ribs and had many abrasions on back, but no deep wounds or bruising, and spine seemed to be unaffected by the fall. P said did not believe hit head during the fall. Helmet appeared untouched. At P's request, attendant pulled a jacket from pack, and a cordelette, and created a sling for P's arm. Attendant told P about the plan to haul P up to the anchor, and rappel down the South face of Concord, and once again asked if P wanted a

was able to stand and keep feet in front/under self during the haul, though it was clear that P was in a lot of pain and could only move very slowly. One, still managing P's belay with the other rope, took in slack as P was brought higher. Once P was brought to the anchor, P was secured to the anchor and given a jacket for warmth (now in the shade).

A tandem rappel was necessary to get P off the route. Not wanting to trust the current (small tree) anchor with the task, and knowing there were bolts on the summit, team belayed up the short pitch to the summit block. While one was setting up the rappel, another belayed third over to the current anchor. One rappelled off the summit block, back to the tree anchor and began setting up the tandem rappel system. Another ascended the rappel ropes to the summit block, trailing the rope still tied into. Once P was secured to the rappel system, team untied P's rope from harness

Attendant and climber were ready to rappel. Because they were not directly under the bolted anchor on the summit, we knew that a swing was inevitable. In order to control this as much as possible, the tail of the second rope was clove hitched with a locking carabiner to tandem's extended rappel loop and run through another's belay device (who was anchored to the tree anchor). As attendant and climber stepped off the ledge onto the South face, third slowly let out rope to get them to a neutral hanging position. Once a neutral position was achieved, attendant removed the clove hitch and continued the rappel as third pulled the second rope back up. Third tied into the second rope, broke down the tree anchor, and fourth belayed to the summit. At this time, because of the indirect routing of the rappel rope, tandem (attendant and P) were nearly out of rope and could not reach the next rappel station. Attendant yelled up to the summit indicating such. Top team set up a second rappel with the second rope on a second pair of bolts, and third rappelled down to tandem team. Once third reached tandem team, a second tandem rappel system was created and P's weight was transferred from attendant's rappel to third's rappel. Third and P rappelled down to the next rappel station and secured themselves to the anchor chains. Prior attendant was able to stand on a flake and unweight rope enough so that top, on the summit, could flick the rope to the correct orientation so that could reach the rappel station. Once top arrived at the rappel station and was secured to the anchor, pulled rappel rope while a party member ran it through the chains to setup the next rappel. Once the rope was setup, top again setup tandem rappel system. After safety checks, in order to lower P onto the rappel (at a position below top), P

						professional rescue, P declined. P declined an offer for a jacket for warmth. P accepted an offer for a splint, so attendant made a crude splint using two chockpick tools and a length of perlon. (more in lessons learned column)	was connected via a cordelette to belay loop to a munter hitch on the anchor and slowly lowered until P was hanging on top's rappel system. New tandem (top and P) began rappelling to the base of the tower. A participant rappelled down to next, they pulled the first rappel rope, and then both rappelled to the base of the tower. The time was approximately 5:30 PM. P took some ibuprofen and Tylenol, while top assisted P with changing shoes and getting ready for the hike out. Another party member created a better splint for P's wrist using a foam sit-pad. P started down the gulley as the team stowed gear and then joined P shortly. Progress down the gulley was slow at first, but quickened as the ibuprofen/Tylenol took effect, and the terrain eased. The team got to the trailhead	
							parking lot at approximately 8 PM. Several had carpooled to the climb, so they all drove to Overlake hospital in Bellevue at P's request. Two left P at the hospital, around 11:30 PM after confirmation that friend would be meeting P there shortly. P could have placed more protection (better protecting the crux), which would have mitigated the fall.	
Aug- 18	Climbing	Near Miss	Logistics, Equipment Issues, Party Issues	party issues - conflict, misunderst andings, organizatio n	rock - technical, rope & protection needed	One of the students was scrambling / down climbing a 5.6+ class of rock without ropes, where the student had no prior rock exposure, and with a significant drop below. Also, another student had a huge rock kicked (by another group) down at him on the way down, which was more than 2 feet long and heavy.	Crux), which would have intigated the fall.	Judgement
Aug- 18	Scrambling	Minor	Slip, Fall, Capsize	fall (travel a distance)	rock - talus, boulders, scree	While descending a talus slope, P lost balance and tumbled over 30 feet down the slope. I heard P shout and witnessed the last few feet of rolling tumble. Another person witnessed most of the tumble but not the initial fall. P stopped rolling when reaching the other person. P had crossed arms over chest with head slightly ducked. This protected core but may have allowed to continue rolling instead of stopping quicker. Unsure which would have been the better course of action. Rolling distance over talus rocks was over 30 feet. We had P sit a while and assessed injuries. Abrasions on the left hand and right knee. Some bruising on arms near the elbow. Minor band-aid treatment for those conditions. We also took some of weight from pack to make it travel easier. P was able to walk out but complained of pain in right foot. Also P was fatigued after the ordeal. Very slow going and there was still over a mile and half of difficult scramble terrain before we made it to the old Snow Lake trail. P did email me after getting home and said believes nothing is broken but there are bruises.	Hard to come up with real lessons to how to mitigate this situation. Obvious is to say to be careful when descending talus. Picking routes that minimize talus travel may also have helped. The rolling tumble may have stopped quicker if he had put his arms out but that also may have caused further trauma.	Skill
Aug- 18	Scrambling	Safety Concern	Other	route conditions, route	Snow - steep, ice axe, poles	We reached the summit at 2 pm on 9/1 and stayed overnight at the lookout. Temperatures in the evening was low 40s and wind was blowing. I did not ask participants to bring crampons. We woke up at 6 am and I knew that the	LEADER: We descended the snow field without slipping. In hindsight, I needed to stand up for my decision and informed the party we would be staying longer to let the snow warm	Judgement

	finding,	recomme	snowfield leading to the trail was going to be bulletproof, but other members of	up or ask everyone to carry crampons. I could have used a
	_	nded		· · · · · · · · · · · · · · · · · · ·
	lost,	nueu	the party wanted to depart the lookout after packing. We left at 7:00 am. The	rope and hip belayed participants down. Needed better
	overdue		snow was very icy and a slip on it would be very difficult if impossible to arrest on.	planning and not bowing down to peer pressure to leave
			One participant was very unhappy and scared of the situation.	early.
			The assistant leader on this trip made it clear they wanted to be back to the	Summary
			Trailhead on Sunday at a certain time because they had dinner plans with a loved	1. Tell everyone not to make plans immediately after a
			one. On Sunday, the assistant leader wanted everyone to wake up at 6am and	scrambling trip.
			leave the lookout very soon after that. The assistant leader said, "I could maybe	2. If your plan includes using the rope, then maybe you
			leave at 9am, but I will fight it!". The assistant leader specifically said that they	should rethink your plan. Is there a safer way to do things
			will "fight" leaving any later, as they very strongly wanted to be back home for	that minimizes the need for the rope? The rope should not be
			dinner plans. The leader and assistant leader mentioned the possibility of the	your 'crutch' to follow through on a sketchy plan.
			snow field being icy that early in the morning. Because of the assistant leader's	3. Not be a people pleaser when one person of the group is
			insistence on leaving anyways, despite the possibility of ice, the default plan was	adamant about leaving at a certain time for plans outside of
			to "just get out the rope if the students are scared". The leader and assistant	the scrambling trip.
			leader discussed doing a hip belay.	4. Don't do things that you are not equipped to do. We could
			Teader allocassed doing a mp setay.	have descended the icy snow field more safely if we had
			On Sunday morning, when we got to the snow field, it was solid ice. The leader	crampons. But we did not have crampons.
			described it as "bulletproof". We did not have crampons. You could not kick steps	crampons. But we did not have crampons.
			in this. I had to use a significant amount of force to get my ice axe in the snow,	
			and even with that, I could barely get it in. I had bruises on my hands after this	
			trip, from the force of stabbing my ice axe into the hard-as-ice snow. When we	
			started descending the snow field, which was solid ice, I was told that they	
			couldn't get the rope out. That the rope wouldn't reach the entire length of the	
			snow field, and that I would have to descend on the ice further, without a rope. I	
			was told that I could get the rope further down, but not where I was standing	
			(due to the length of the rope). At the same time, I was also told not to stop on	
			the icy slope, to keep moving. I descended the entire icy snow field without the	
			use of a rope.	
			The decision to leave the lookout early was largely based on the assistant leader	
			wanting to be back for dinner. The default was, "Well if it's icy, and the students	
			are scared, we can just get out the rope." I strongly disagree with PLANNING on	
			using the rope, rather than, pulling the rope out if there's an unexpected situation	
			where someone gets scared. If your decision relies on using the rope, before you	
			even start the route, something is wrong. If the leaders knew that the rope may	
			be necessary that early in the morning, than why did they plan to leave that	
			early? Using the rope should not be your go-to plan.	
			, 0	
			But even the "rope plan" was faulty. They couldn't get the rope out when I had	
			wanted it, because the rope was too short for the length of the slope. I strongly	
			disagree with this kind of decision making. The decision to leave early from the	
			lookout on Sunday morning was not based on safety nor the conditions of the	
			snow field at that time. We should have waited a few hours to descend the snow	
			field, as it would have softened by that time.	
			Afternoon finished december the income of field the leader said that it	
			After we finished descending the icy snow field, the leader said that it was	
			"sketchy" and "dangerous".	

Sep- 18	Day Hiking	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	trail	About 2.5 miles into the hiker tripped and required field first aid. Report per first aid leader of the day: Hiker (H) tripped over a root and fell on trail, landing primarily on H's left forearm. Did not hit head during fall. H sustained an upper forearm wound approximately 1 inch long by 1/4-3/8th inch wide and deep. Moderate immediate bleeding. No other injuries noted based on body scan. Cleaned and sanitized the wound and dressed with butterfly strips and a large bandage and wrap. Changed outer bandage (now bloodied) about 90 minutes later. Slight bleeding continued. Injured person advised to monitor wound closure and seek medical care in morning if needed. I checked in with the injured party throughout the day. Bandaging was excellent, wound seeped a little bit from time to time. Hiker was very motivated to keep going, showed no signs of infection, wound was stable on the dorsal/lateral side of forearm and was not at risk of reopening due to movement. Completed hike without further issue. I contacted hiker the next day for follow up. H went to the clinic that morning and got four stitches plus a tetanus shot. The staff at the clinic said SL did an excellent job cleaning and bandaging the wound.	Kinesiology tape/rock tape used by physical therapists is excellent for applying pressure to wounds to keep them closed. A participant had it in first-aid kit. I'm adding it to mine.	Trail nav
Sep- 18	Stewardship	Significant	Hit, Struck, Cut	equipment issues	developed spaces, campgrou nds, fields	This incident occurred in the area around Meany Lodge to be now known as the well site. Participant P and Mountaineer leader L were working on a newly cleared space for the new well. We were responsible for leveling out the ground for the well drilling rig. We encountered a large rock about 200lbs in weight half buried in the area to be leveled. L and I dug around the rock in order to roll it out of its hole. At one point both L and I had our hands around the back of the rock along with a couple of shovels for prying it up. Somehow the shovel shifted and our grip on the rock was lost. The rock rolled back into the hole with my left-hand middle finger caught between the shovel tip and the rock. The area crushed was at the base of that fingernail through the heavy gloves I was wearing. It broke the skin and blood also appeared under the fingernail. I immediately removed my glove and walked back down to the lodge for some ice to apply. The pain would continue to grow through the next 2 days. I stopped by the UW care clinic after my Monday work shift and x-rays confirmed that the finger had a fracture.	Pry bars and wooden blocks could have been utilized and a person's hand would not have to be put in harm's way.	
Sep- 18	Youth Programs - camp, Mac, etc.	Major	Slip, Fall, Capsize	Slip not resulting in a fall	trail	During a hike of Icicle Ridge (a moderate 6-mile RT hike w/ 1800 ft of elevation gain), one of the new MAC students slipped on the rocky edge of the trail and dislocated left kneecap. The slip occurred during the descent, about 1/3 of the way down the trail. 911 was called and a fire department paramedic team was dispatched who arrived on scene quickly and carried the injured MAC student down the trail on a litter. Student S was taken via ambulance to a hospital in Wenatchee where S was treated for the dislocated kneecap. This was during an overnight MAC trip, and the participants parents drove out to Wenatchee to pick S up that night. The parents noted in e-mail communications afterward that they thought the Mountaineers handled the incident well.	This one would have been hard to prevent, given that it was just a typical slip that happens to everyone on the trail. It just happened to occur in such a way that it dislocated the MAC student's knee. Doctors mentioned that S might've had some joint instability predisposing S to kneecap dislocations. Potentially helpful in reducing the likelihood of incidents like this is reminding MAC students to be very mindful of their foot placements on the trail and to avoid the border of the trail, which typically drops off steeply.	Frail nav
Sep- 18	Scrambling	Significant	Slip, Fall, Capsize	rock fall, rock movement	off-trail, cross- country	On a scramble of Labyrinth Mountain, an experienced group of 4 chose to take a more challenging route on the descent. As I led the way down a loose scree/talus slope, a few small rocks were inadvertently loosened a short distance above me. When everyone above me yelled "Rock!", I quickly tried to move out of the way and slipped and landed mostly on my rear but my left hand came down on a sharp rock, resulting in a moderately deep laceration. The rest of the party quickly patched me up, and we were soon on our way. For the remainder of that	In loose rock situations, I use a range of techniques for safety sometimes keeping a small group close together, sometimes having one person at a time negotiate a particular slope. This time, the 2nd technique would have been a better choice. Note that the rocks that came down from above me were not the direct cause of the accident, because they were relatively small and not moving very fast; only one of them hit me, and it caused no injury.	Rockfall

						loose rock slope, we did it one at a time. Once back in Seattle, I went to Urgent		
Oct- 18	Climbing	Minor	Slip, Fall, Capsize	fall (travel a distance)	rock - technical, rope & protection needed	Care at Kaiser, where the wound was cleaned and sewn up with 4 sutures. INSTRUCTOR: when we arrived at the base of Tree Route, we had a discussion how wet the rock was and whether or not we wanted to wait. An instructor was insistent that we begin climbing as I think Instructor was excited to climb some other routes that day. My partner and I were the second rope team and after a safety check, P began climbing. The first pitch is on a bit of a slab and since the rock was wet, it wasn't the most ideal conditions. As my partner took a cam out and was engaging the trigger, P feet slipped and fell before getting piece in. I immediately reached up and caught P in the air. The momentum of P's body pushed me backwards off the ledge I was belaying from and we fell down the ledge onto the next landing. We both had helmets on. When I opened my eyes, I saw that P was fine and I had managed to hold on to P the whole way down (kind of like I was a sled). P had a scrape on hand, but otherwise P was injury free. I was also injury free other than some bruising and a busted thumbnail.	INSTRUCTOR: We should have waited until the rock was dry. Both of us had all of our safety gear on and that definitely prevented worse injury. It was miraculous nothing worse happened, but all in all, we handled it the best we could. CO-LEADER: would have been good to have belayer anchored in to prevent additional tumbling even though they were on a big comfortable ledge.	
						We checked each other out and took a long breather, ensuring both of us were safe. We talked through what had happened and I made sure P was comfortable getting back on the route. P was a bit spooked, but P was a champ and we had a successful summit after that.		
Nov- 18	Backpacking	Significant	Illness or Personal issues (conditioning , lack of skill)	injury/ illness - sudden onset	trail	Our 15-person Global Adventures group was trekking in Sikkim India, everyone having acclimatized well to altitude and moving along well. On the 6th day of our 9-day trek, one individual in the group arrived at camp in the late afternoon complaining of significant pain in their left flank as well as nausea and constipation. After providing pain and nausea medication and doing a more detailed assessment (overseen by an internal medicine MD who was also a participant on the trip), it turns out that the person had two prior incidents of kidney stones (the most recent being 10 years prior). The person was not able to eat or take in much water nor to pass much urine, and we made the judgment that the person would need to be taken out to a hospital if they were not able to pass the stone overnight. We began immediately to work on the logistics of getting the person out. First thing in the morning we checked in with the person and their condition had not improved. Helicopter evacuation was not available in the area so we proceeded to send the person out walking to the trailhead (a two-day walk), with two medically trained volunteers as well as a lead sherpa and a horse carrying the group's gear including a tent and food supplies. They completed the walk with no issues, and we had a car waiting at the trailhead which took the group immediately to the nearest good hospital in Siliguri India, a 6-hour drive. After several diagnostic tests the individual (with the approval of our medical folks) decided to fly immediately home to get treatment. They were treated for the stone and all is now resolved. We discussed the incident at length and concluded that there was nothing that could have been done differently during our trekking trip to prevent this incident from happening. The individual's past history of kidney stones made them susceptible to subsequent stones though it had been long enough in the past that they didn't anticipate or communicate any potential issues before the trip. As the leader I had developed an emerge	This experience reinforced the importance of advance planning on remote adventures to ensure that an injured or ill person would have the support and resources to get out in case of an emergency. Upon extensive post-event review, we concluded that there was nothing we could have done differently to prevent the kidney stone condition from developing and the person really couldn't have anticipated that it would happen on this trip.	

						that we had the resources available to help a person out if required, and our outfitter and our group supported the individual to get out as quickly as could be achieved given the terrain. Everyone in the group had understood and signed off in advance of the trip on the fact that there were parts of this itinerary which would require two days or more to exit. The emergency plan worked flawlessly and we were immensely grateful for the support of the outfitter and the two group members who selflessly left the trip two days early to help the person get out.		
Jan- 19	Properties, Program Centers, Lodges	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	Snow - non- technical	A student fell while on skies right outside the Meany Lodge and fractured wrist. S received excellent medical attention from great people at the lodge, then we got a snowmobile ride back to our truck. After that, five hours in the ER! We are very appreciative of the caring and competent people who helped us after S's accident. Thank you!	There was nothing you could have done differently. This was just a freak accident. I think I fell many more times than my spouse! S just lost balance and fell on wrist. Not much to say other than it was an unlucky fall. We were very grateful that it happened where it did. If we would have been on our own and/or far from help, it would have been a much more difficult situation.	
Feb- 19	Backcountry Skiing	Major	Slip, Fall, Capsize	Slip not resulting in a fall	developed spaces, campgrou nds, fields	LEADER The group was in Niseko, Japan walking back after dinner at a local restaurant to the bus stop to go back to the hotel which was 20 minutes from town. Part of the group walked on the soft snow on one side of the street and part of the group walked on the icy sidewalk on the other side of the street. On the gear list which each participant received micro-spikes were listed as a necessary item. On this evening, the leader and many of the group were wearing shoe traction of some type of spikes. I was walking in the soft snow when others on the other side of the street yelled "P has fallen and hit head hard." (P had micro-spikes but elected not to use them even when knew ahead of time the sidewalk was icy.) The temperature was about 15 degrees F and there was slight wind. When I arrived at the scene, P was sitting on the icy sidewalk and other English-speaking Japanese asked if I wanted an ambulance. I asked them to call the ambulance. We supported P as P stood up and we walked about 30 ft to a nearby grocery store to get P inside and out of the cold. P could talk and eyes seemed equal in size. P sat down on some crates but soon complained was lightheaded and stomach did not feel good. We had P lay on the floor until the ambulance arrived, about 10-15 minutes. The EMT did a quick exam before putting P on a stretcher to the hospital about another 20 minutes from this location. I rode in the ambulance to the hospital where MRI of head was completed with no sign of a bleed in head. While waiting for the results I realized that P did not remember anything but falling down. P is also on blood thinners. The physician said P could leave at that point but was concerned by the lack of memory about what had happened. I asked for P to remain in the hospital overnight for observation. P had at least an hour of amnesia, was on blood thinners and was over an hour from the hospital in a country where I did not speak the language. It also meant I was going to have to stay awake all night. P was discharged the next morning	Vou can have people bring traction devices but you cannot force them to use them. After the previous night of walking on this sidewalk most of the group used traction devices. The traction devices were readily available in stores every day of the trip. PARTICIPANT For slip and fall - participant should have been wearing microspikes.	Gear Skill

						Participant should have been wearing microspikes; he seemed to have poor	
Feb- 19	Backcountry Skiing	Major	Illness or Personal issues (conditioning , lack of skill)	injury/ illness - sudden onset	Inside a building or structure	balance and had already fallen twice on icy sidewalks. LEADER This was an occlusion or the right coronary artery which presented during a rest stop for Matcha Tea lattes in the afternoon. Participant application stated: Medical: Nothing I think worth mentioning, slight medication to keep blood pressure and cholesterol in check. Fitness Program: Inline skating multiple times a week, weather permitting. Otherwise, gym twice a week, mainly cardio exercises. P had been skiing with 4 of the group after lunch. P had had a good Japanese bowl type lunch. As we got dressed to go outside P mentioned that P was hot. This was not an unusual statement as the restaurant was small, full of people and we sat near a wood burning stove. (Until I wrote this report P statement was just a statement of fact, not the precursor of the full obstruction of right coronary artery.). We stopped for our normal afternoon break, and P complained P was sweating profusely. A few minutes later P said P was really tired. To me P face was almost white, not robust tan and pink highlights. I felt something was happening so I immediately got up and looked for a ski patrol. I came back to the	LEADER I had never seen anyone experience a right-side occlusion only left sided heart attacks. The symptoms may vary with a right sided occlusion. Pain over the heart is not necessarily present. I should have carried a full size, single wrapped aspirin in my pocket which I could have asked participant to chew. If P was having a heart attack it would help thin the blood. If P was not having a heart attack it would not have hurt P.
						table where P was now putting head on the table, had P lie of the floor and prop legs up on a chair. P said felt so much better lying down. I immediately went to the cashier who I thought probably could understand English and said ski patrol. They pointed to a building across the slope. I said "NO! Ski patrol here," pounded my hand on the left side of my chest and said heart attack and pointed my hand to the floor near where P was. I was not sure P was having a heart attack but I knew that would get ski patrol fast	
						A ski patrol came with a suitcase of supplies. 3 more came. P now said it hurt to breath to the ski patrol. As the ski patrol did a quick exam another ski patrol interview me. Luckily I had most of the information they wanted on my cell phone. P was placed in a toboggan carried outside where poles were connected to the toboggan and P was placed head downhill, covered and smoothly and slowly taken down the hill to a waiting ambulance.	
						I rode in the ambulance with P to the regional hospital. P was taken for a package of tests and exams to determine the cause of the events on the hill. As the doctor had limited English and I had worked in cardiology performing cardiac echograms and in research looking at plaque formation, I was able to translate what the doctor was telling P as Dr reviewed the exam results. P was given the information that P needed to have the artery opened immediately, that night and in Japan. An ambulance, a nurse and 3 EMTs were waiting for P decision. They took P for about a 2-hr. transport to the main hospital (I believe the university hospital) in Sapporo. P was catheterized, a stent placed near the origin of the right coronary. The cardiologist called me at 11:30 PM and in perfect English explained what had been found and what had been done. The doctor was in the room with P listing. I then talked with P who was in good spirits. P was kept in the hospital for almost 2	

				weeks.		
				PARTICIPANT Heart attack at ski area - other participants noticed symptoms (I was not present), confirmed by ski patrol, evacuated by toboggan to base, transported to local hospital by ambulance, then to regional hospital in Sapporo by ambulance for surgery that night (stent). Participant had family history (brother and mother) of heart attacks but seemed fine until shortly before this incident. I believe the trip leader has already submitted reports on both incidents.		
Feb- 19 Sea Kayaking Safety Concern	Other	water hazard - wake, waves, conditions	water - large bodies, fresh or salt	At Clallum Park East, my surf kayak got trapped by dumping surf and significantly damaged. No one was hurt, but there was some risk in the process of retrieving the boat. We were driving to Hobuck beach and stopped several places along the straight looking for surfable waves. At Clallum Bay we saw a wave breaking on a reef at the east end of the bay. We drove to Clallum Park East and launched from the beach there. The beach was steep gravel. At lunch time, moderate waves made dumping surf which presented some small difficulty in launch, but no significant problems. We paddled to the reef. The breaking waves were bigger, more extensive than what we saw from shore. We decided conditions were not safe for surfing there. We paddled out into the bay then back to the launch point. We were sure that the swell had increased since launch. From the seaside, waves breaking on the beach appeared larger. I was padding a Mega Bullett S surf kayak and had the following considerations with this smaller boat. I would take me longer to exit the cockpit. Waves were close enough that I would likely be caught still part in the boat by a following wave. The boat had fixed fins that I preferred to not drag in the gravel. The boat was more likely to be tossed end-over-end by a large wave. Based on these, I decided to exit the boat outside the surf and swim its in. Swimming the boat went slower than expected. The small waves that may have been manageable, passed under me and then a large one came. I did not want to be tumbled in the wave along with the boat so I pushed off to the side. I struggled through several waves, got my feet under me, and looked for the boat. I expected to be able to grab it and pull it up the beach. This did not happen. The breaking waves would push the boat up and then the water rushing back down the beach would pull it back into the next breaking wave. It circulated there, out of my reach. The water in the boat pushed all the floatation out of the boat, which we collected. I was able to swim out to the boa	I took some risk recovering my boat. I was able to move myself in and out of the surf but it was difficult and the margin of safety small. Faced with same situations again, 85% I would paddle to the safer landing and 65% would swim out to recover my boat. I would not let anyone else go into that surf without a line on them.	Judgement

						could have paddled west to find a more protected landing. Within a mile or two there was a boat ramp behind a break water that would have provided easy landing. We didn't consider this because we didn't judge the landing to be too difficult. The second critical decision was my going back into the surf to the boat. The waves were large and broke with considerable power. Each time I went in, a large set would knock me off my feet and sweep me back and forth several times. I was always able to get to the boat and back, but it was difficult.	
						The last time I swam out, we considered attaching a tow line to me (belt around my waist) but I rejected that because we did not have enough for me and the boat. Also, some risk of getting entangled when I was knocked down by the surf. I did hold the line and could have been pulled back by that - as long as I retained my grip and until I connected it to my boat.	
Feb- 19	Climbing	Significant	Illness or Personal issues (conditioning , lack of skill)	injury/ illness - pre- existing condition	Inside a building or structure	A student began exhibiting dizziness and physical weakness at the beginning of the field trip. The student told me, the field trip leader, S had taken (unknown) medication and had experienced vertigo before driving to the field trip. I told the student if S continued to feel sick or weakness to stop further activity and contact me. The student said S felt fine and continued field trip activity (knot tying at that time).	The student should have recognized if S was experiencing vertigo before driving, and S should not have driven to Seattle. Based on the transpired events there does not appear to be anything that could have been done differently to avoid the incident or mitigated the outcome.
						I continued to observe the student as time progressed. Approximately three hours later, the student's physical condition had declined further. The ill student had stopped all field trip activity and was asked to walk and sit on the couch in the lobby of the Program Center. A field trip participant with SAR medical training was contacted to conduct an interview with the ill student to determine condition. Subsequently a student, a Nurse Practitioner, also evaluated the ill student. Both individuals concluded the ill student should seek immediate medical attention. After three vomiting episodes in the restroom the ill student stated was feeling OK so no call was made to 911. Instead the ill student provided the name of medical insurance provider and it was determined the nearest hospital/urgent care clinic was on Capitol Hill, Seattle. However, the student stated S wanted to go to S medical insurance provider's hospital/urgent care clinic in another location, near where the student lived, so S vehicle was closer to S residence.	
						A instructor agreed to drive the ill student to this hospital/urgent care clinic location using the ill student's vehicle. The ill student's emergency contact person on file with The Mountaineers was contacted and advised of the ill student's condition and of the intent to transport in personal vehicle to the hospital/urgent care clinic in south Everett.	
						It was later confirmed the instructor did arrive at the south Everett hospital/urgent care clinic with the ill student to seek further medical attention. At the time of this report submittal, the ill student did obtain medical assistance and is fine.	

Feb- 19	Backcountry Skiing	Safety Concern	Other	route conditions, route finding, lost, overdue	Snow - steep, ice axe, poles recomme nded	There were near misses of high-speed skier-tree and skier-skier collisions during the Patrol race. For those actually racing (IE max speed on downhills) there was the potential for bad impacts on certain portions of the course. I consider myself an expert skier and wished I had had a helmet during several descents on the course (my partner, who'd raced the course before didn't think we'd need them, so I didn't bring one).	Require helmets for race participants. I suggest climbing and cycling helmets be allowed to not put unnecessary cost burden on skiers as "normal" resort skiing helmets are too heavy and hot for backcountry racing, and specialized ones are expensive and of limited availability.	Outdoor Center
						There was no emergency services or care evident for this event. I have participated in many distance endurance events (cycling, skiing, running), and none of them would legally accept the level of mismanagement and lack of preparation that the Meany Patrol Race does. There was no check-in to determine if participants: - were registered for the event - were carrying the required avalanche beacon - were carrying the required snow probe - were requiring the required snow snow shovel		
						There wasn't a check-in at all. Also, why wasn't there a mandatory pre-event safety meeting? This is common practice at every endurance event everywhere in the US. What if someone got hurt or lost at mile 15 of the event? What was the protocol for helping them? Who was on staff for extracting them for medical care? As far as know, there was none, and was on my own and should prepare to die if I participate in this event.		
Feb- 19	Climbing	OTHER	Safety Concern	equipment issues	gym, artificial climbing walls, sports area	At skills night I was checking the locking carabiners on the upper ledge in Goodman C and both lockers on the west side top rope were unlocked and one of the two on the east side was unlocked. With those odds, I figured the others that were unreachable to be suspect but didn't check. I tightened all the lockers I could reach. A night thereafter, one of the west side lockers was unlocked again! Obviously, something is going wrong here and the way they are situated make them unscrew.	Maybe we need to invest in auto lockers?	Program Center Gear
Mar- 19	Nordic Skiing	Significant	Slip, Fall, Capsize	fall while skiing	Snow - non- technical	LEADER We were XC skiing on the groomed Rendezvous Trail system in the Methow Valley, and at the time of the incident were about 6 km from our hut. At about 3:45 pm, P fell on a steep descending portion of the trail, and injured knee (P thinks the knee gave way, causing the fall). After making sure P was able to get up and did not have a life-threatening injury, I went a short way up the trail to where I had cell reception and started making calls to identify our options for evacuation, as P said P was unable to walk. Meanwhile, other participants came back up the trail to check on us. We gave P extra clothing to make sure P stayed warm, and after about 15 minutes, P decided P could walk slowly and carefully, using ski poles for stability. I split the group into 2 parties, sending 2 and the trip co-leader back to our hut, as we only had 2 hours of daylight and it was quite cold. Two of us then traveled slowly the 1.3 km to the closest hut, which we had just visited. Upon our arrival there, the party of 8 in that hut welcomed us and offered help. We were able to reach the snowmobile operator who owned the hut system (and had hauled our gear in). He said he would come get P and give a ride to our hut. So, the other skier and I with me departed at 5:10 pm and skied to our hut, arriving just before dark. Shortly thereafter, P arrived on the	LEADER As the trip leader, I was in the back, making sure everyone got down the steep hill safely. When I saw how much trouble P was having with the descent, I suggested that P and I go the short distance back to the top and take an easier trail. P declined. Instead of offering this, I should have insisted that we do this. CO-LEADER In hindsight if someone is having a ski confidence issue and fussing about the best way to descend at the start of a trail and ignoring the suggestion from the leader to take off skis and walk back up the hill to go to an easier trail, just stop right there, and insist we all back track to an easier trail. Fortunately, all ended well that evening, as P was able to walk out with the aid of two ski poles, machine transported back to the cabin. P appeared to need only OTC pain relief, ice, and rest with a follow-up doctor visit upon her return to home.	

						snowmobile. We offered ibuprofen (which P started taking roughly every 4		
						hours) and provided P with an ice (snow) pack. During the evening, P realized that		
						wrist was also hurting, and it was swollen and bruised the next morning, though it		
						functioned normally. P was able to sleep relatively well that night and spent the		
						next day in the hut. This morning (after our second night in the hut), the same		
						snowmobile driver gave P a ride out to the trailhead and we drove home. P plans		
						to see primary care physician as soon as possible.		
						CO-LEADER		
						P fell on a steep section of a hill in 65 mm off-trail skies. P hurt knee and bruised		
						hand in the fall. P was able to get up and stand with poles. The ski leader was with		
						P. I was waiting right below the turn down the hill within shouting distance. When		
						I came back up the hill, P was standing with poles. Though knee hurt and P knew		
						P was done skiing for the trip, P was not demonstrating great distress, just letting		
						us know that P could not ski as P injured knee. Shortly after my climb back to the		
						injured party, another skier returned. Our main ski leader, put together a plan		
						that we all agreed too, even the injured person. A phone call was placed and the		
						hut's owner picked up P and brought P back to the cabin. The other two skiers		
						skied back to hut, reaching it just as dusk was settling in. P was made comfortable		
						with OTC pain relief and an ice bag. P was in good spirits and said P was good with		
						rest and would ride out with luggage on snowmobile on our departure day.		
Mar-	Navigation	Minor	Hit, Struck,	hit/cut -	off-trail,	Injured thumbnail (partial separation of the nail) on the navigation field trip.	The wearing of gloves could have helped minimize potential	Heybrook
19			Cut	natural	cross-	While coming down the final navigation course in deep snow, the individual	for this particular injury. We did modify the exercise due to	,
				object	country	slipped into a tree well or log well feet first and caught thumbnail on the bark of a	very unexpected field conditions (heavy snow levels in March,	
						tree on the way in. The thumbnail broke and was bleeding. It may have separated	post holing, etc.). We cut the final exercise in half and gave	
						about 1/4 to halfway down.	time for students to move more slowly and carefully.	
Mar-	Navigation	Safety	Other	route	off-trail,	CO-LEADER: students and instructors on the final problem descended the south	CO-LEADER: the blowdown remains an enduring issue for the	Heybrook
19		Concern		conditions,	cross-	flank of Heybrook Ridge. One E-W section. perhaps 500m long, is confused	Seattle Navigation Committee. Based on reports from the	
				route	country	blowdown from a major wind event. Snow depths reached up approx. 1 meter.	leaders of the Saturday field trip, students and instructors	
				finding,		Navigating through the section with or without snowshoes proved difficult for	were advised to bring snowshoes, microspikes and poles for	
				lost,		most of the students and instructors. Two instructors remained at the logging	the Sunday field trip. A compass bearings activity in stump	
				overdue		road catch line. The descent this day was shortened, leaving from the overgrown	fields was replaced given the snow depth. Students were kept	
						logging road rather than the higher spine of the ridge. Students were "guardian	in near sight by instructors through the final problem. Over	
						angeled" in groups of 2 to four for this final problem. They trailed students at a	the 15 to 20 trips (several 100 students) that have navigated	
						short but discrete distance through the exercise. At least one instructor on exit	the blow down there have been only minor injuries (scrapes,	
						reported that the section was too dangerous to be included in a wilderness	bruises), no more than normally occur in broken ground.	
						navigation field trip not identified as a winter scramble.	The trip is advertised as rigorous with broken ground.	
							Students practice keeping their partner(s) in eyesight and	
						The blow down challenges have been the topic of several navigation committee	hearing on a shorter exercise earlier in the day.	
						conversations since the route became more difficult. No injuries, minor or other,		
						were reported to the Day Lead.	Is the experience running the trips with strategies to minimize	
							risk sufficient? Students continually report the Final Problem	
						PARTICIPANT 1 Starting from waypoint on Heybrook Ridge and navigating	instills considerable confidence in the back country	
						ourselves down to a forest service road south of our starting point. Snow was	navigation skills now enhanced with the full integration of	
						very deep and covered a bunch of large blown down trees. This created a terrain	altimeter and gps tools.	
						of deep snow with large pockets of air. None of us had snowshoes, except for an	arameter and Spo tools.	
						instructor who seemed to be moving through the area with only moderate	PARTICIPANT 1: Snowshoes should have been required. Could	
						challenges. Every third step or so involved falling into a hole where we were	have been purchased or rented for \$10-20. Either that or we	
1								

Mar- 19	Climbing	Near Miss	Logistics, Equipment Issues, Party Issues	party issues - conflict, misunderst andings, organizatio n	rock - technical, rope & protection needed	rolling ankles and getting scraped. I fell through a hole and my thumbnail caught a log to my right, ripping the nail down the middle and caused pain and bleeding. PARTICIPANT 2: The near miss was in the Final Problem where we followed a bearing descending a steep slope for nearly 2,000 feet. The heavy snow mixed with dense trees hid hazards and didn't support me as I descended the slope. The deeper snow mixed with streams, fallen trees an unknown terrain below introduced significant risk. The Basic Snowshoeing class teaches students to stay clear of tree wells, but in this class, I had no choice but go through area that contained tree wells every 20 feet or less. I was places in a bad situation with no clear exit. All I could do was go extremely slow. The fast half of my class group essentially abandoned me with one instructor going on to support them and handing me off the other instructor. There not much either instructor could have done. I nearly got into spots I couldn't get myself out of. I lost my footing to snow going into tree wells or unseen holes hidden by snow countless times. I was no longer focusing on learning in a navigation task in a class activity but instead focusing on preventing inevitable injury. My right snowshoe was bent up and unusable after this event. Most of the class did fine, since snow can hold someone up that weighs 150 lbs. I weigh 275, and this should have been a no-go for me. I wished I knew the beforehand, and I could have put off this activity until later in the season and had a much more positive outcome. While leading a cragging trip at the Sunshine Wall in Vantage we had a "near miss" incident involving a couple of our participants and the establishment of a top-rope belay. One participant had setup a top-rope. After lowering off P swapped ends and follower tied in. There was, apparently, some confusion during the establishment of the belay, and rather than putting the rope through belay device, P instead just started pulling the rope in hand-over-hand. The climber st	Hopefully the lesson learned here is that no matter how the suggestion students bring snowshoes. Skill experienced you become, you must never skip steps in establishing a viable belay. Your mind must not wander, you must not become careless or distracted. It is up to both parties to go through the sequence of checking each other out. Is my harness on correctly? Am I tied in correctly? Is the rope through the belay device properly? Is it attached correctly to the belayers harness? Am I on belay? Ok, "on belay", "your belay is on", "climbing!", "climb on!"
Apr- 19	Climbing	Significant	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	Events/Diagnosis: During crevasses rescue practice, a participant injured right ankle while attempting to stop a simulated fall as the middle person on the 3-person rope team around 2PM that day. As the MOFA lead, I was called over and began to assess the extent of the injury. P history included a past injury (torn ligaments) to the same ankle. P said P felt a pop sensation. No breaks that I could	

						detect as P was able to move foot back and forth against stress with slight pain. Side to side movement induced sharp pain. Determined that it could be a bad sprain or possibly ligament damage. Decided to keep boot on so it would keep it compressed and act like a splint. P was able to walk/limp with my help to an area by our packs and I had P sit down and put on extra clothing to keep warm. P was not going to be able to continue, P was able to contact someone to come and get P. P was still cold so I assisted P down to the cars where P waited in another participant's van for P ride. Recommended that P seek a professional follow up if P condition does not improve. Results: P ride arrived, and P was able to go. P contacted me later that evening with an ER diagnosis of a sprained/possible torn ligament in P ankle. Field Trip results: P was able to complete ¾ of the day's events		
Apr- 19	Climbing	Near Miss	Hit, Struck, Cut	rock fall, rock movement	off-trail, cross- country	As the first group of the field trip was on the scramble, a rock larger than a head fell from the highest students straight down the line of students. The students at the top shouted ROCK with more and more urgency until the rock passed the last person (within a couple feet). It was moving fast and would have hit someone if they hadn't been shouting warnings and could have caused a serious injury because of the size and speed.	Reminder of the importance of shouting rock. It was the first group on a new site and it was springtime, so rock fall might be more likely than it would normally be. The group had finished climbing and had taken off their helmets. This is an opportunity to teach scrambling awareness in the climbing courses. It is also an opportunity to determine a rule of thumb for when helmets are required on a scramble. On snow it is whenever ice axes are out. On rock is it when you need to use your hands?	Rockfall
Apr- 19	Climbing	Minor	Hit, Struck, Cut	fall (travel a distance)	rock - technical, rope & protection needed	Climber was mock leading. C pulled on a loose flake that had been noted by other climbers earlier in the day. The flake was approximately 24" x 18" x 12" at the thickest part. I estimate it was around 75 lbs. The flake pulled and the climber held it for a few seconds (bruising on forearm and some scrapes on right shin). C held it long enough to warn and for belayer to prepare (belayer was anchored to a tree and couldn't move much) before it dropped. Belayer then lowered the climber. Belayer was "nearly" successful in dodging the falling rock but sustained minor scrapes on shins. Climber sustained minor scrapes, bruising and swelling on shins and forearm. First aid was administered to both (small bandages, chemical ice pack). At this point the field trip was almost finished. Both climbers indicated they were fine but being concerned about shock and stress injury I sent them both down with a small team to r&r at the parking lot where everyone was camping. Both climbers felt well enough to climb Sunday for the 2nd day of the field trip.	LEADER: we spent quite a bit of time trying to analyze what had happened. One comment was that it may not have been necessary to anchor the belayer on a top rope climb since there wasn't room to do so at a safe distance. We also noted that people from our branch have been climbing that route for years at a mock leading field trip and we've noted this loose flake. This year I don't think we emphasized to avoid it as much. That said, the climber who pulled it had participated in the same field trip last year. PARTICPANT: we discussed the incident and did lessons learned. It was a great opportunity to take evaluating rock more seriously (definitely with me). We were pounding on rock to hear if it had a "hollow" sound and avoided pro placement in those areas. I learned that "cams" have and exponential force when loaded and can separate large flakes of rock. Those areas best with "passive" pro. Communication - if someone suspected a loose rock then we need to pass it on to the next party climbing that route.	Rockfall
May- 19	Youth Programs - camp, Mac, etc.	Major	Slip, Fall, Capsize	Slip not resulting in a fall	road	Incident occurred on a Seattle Pioneers youth trip. Trip had not left the Seattle Program Center yet when incident occurred. Location of incident was behind the Mountaineers building on the walk between the basement bay doors and the parking lot to the east of the Mountaineers. Pioneers' parents were carrying group gear for the Pioneers trip to a car from the Seattle Mountaineers Program Center basement. P slipped while stepping down the grassy embankment that	Participants were chatting while they were loading the gear into the vehicle. P was carrying a heavy cooler and could have been paying more attention to what P was doing while carrying the heavy item down the embankment, moved slower, or walked around the embankment on the road rather than down it. The cooler also could have been carried	

						separates the road and the parking lot. P was carrying a loaded cooler at the time. P sustained a L ankle inversion injury. Felt a pop and snap. An MD examined the ankle and obtained ice. L ankle was elevated until spouse could come transport P to the hospital. The hospital confirmed a fracture (in 3 places) of the tibia.	by two people to share the load. Be mindful while carrying heavy items/group gear, especially while walking on uneven terrain. Ask for help if an item feels at all heavy or too cumbersome. Go the long way around tricky terrain if it is safer.	
May- 19	Scrambling	Significant	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - technical, glacier, rope needed	LEADER: One student reported they "tweaked" left shoulder during the final stages of learning the ice axe arrest. S completed the remainder of the day's activities but did remove S from the next day's rock scramble class to ensure time to heal. I discussed the incident with S, no medical care was needed at this time. S will go home and self-care unless S has ongoing issues, then S will seek medical assistance. I ask S to call me in a few days and let me know how he was feeling. STUDENT: On the last ice axe arrest practice of the day, I injured my right shoulder and bicep. I was sliding head down, face up, with my pack on. The snow had gotten pretty fast in the afternoon, and I picked up speed quickly. When I reached out to dig my pick into the snow, I flew around awkwardly and felt a pull in my right shoulder. It hurt to push my weight and axe into the snow, so I slid further than I wanted to before I stopped. When I stood up, I called up to the group that I had hurt my shoulder. I had good range of motion, but certain movements hurt and my arm felt very heavy. I couldn't hold anything in my right hand without increasing pain. Two nurses in my group checked me out and said that they didn't think it was serious, but that I should take it easy for the rest of the day. I took Ibuprofen and participated in the rest of the activities as my shoulder allowed. I was supposed to be on a Camp Muir trip today but decided not to go and go get my shoulder checked out instead. I was diagnosed with a biceps tendon strain - but the good news is that my rotator cuff is okay! Ice, ibuprofen, and rest and I should be back out in the mountains soon.	LEADER: Nothing. This occurs from time to time while going thru the ice axe arrest exercises. STUDENT: I wonder if my speed was a factor here. Had we done this arrest earlier in the day with a pack on, would I have picked up as much speed as I did? This was my first arrest practice with a pack on - all of the others we did without packs. That said, ice axe arrest is inherently awkward - it's not a motion that my body does naturally. The only way to learn how to do itis to do it. And since it is highly likely that if/when I fall, I'll fall with a pack on, it is important to learn how to arrest myself with a pack on. I learned that my scramble instructors and fellow students are kind, thoughtful, and encouraging people. I started crying - partly because it hurt, but mostly because I was mad at myself for hurting myself and being unable to go on a Muir trip, I was really looking forward to being on. They reminded me that accidents happen, and that the mountain will be there (unless it erupts - this made me laugh) and offered to help carry my pack if needed. Great folks!	Ice Axe
May- 19	Climbing	Significant	Hit, Struck, Cut	rock fall, rock movement	rock - technical, rope & protection needed	ASSISTANT LEADER: we were setting up our final rappel out of the gulley below yellow jacket. I was sitting above and next to a triangular "refrigerator sized" Boulder. It became evident that the boulder was loose as another climber approached so I told the party and stayed where I was to keep other climbers away. I am unsure how it happened - perhaps the sand below was destabilized in some way - but the boulder began to roll down and then over towards my legs. I moved out of the way but not in time to have my foot partially crushed by the boulder as it settled. I was able to quickly remove my foot and get away but it was clear I had injured it. My shirt and pants were torn where the boulder brushed past me. The party cleared the area around the boulder and I rappelled out and walked the descent. I went to the Leavenworth ER after confirming the party got down and learned that the foot only has a crushing injury and is not broken. PARTICIPANT: as we were descending the sandy gulley above the chockstone to our final rappel station we noticed significant rockfall. When we reached the rappel station, we noticed a small boulder shift in the sand. The boulder had a disk shape and was perhaps 4 feet in diameter. It was about ten feet above and to the climber's right of the rappel station. We started setting up the rappel. I was flaking rope and the next thing I knew the boulder was moving again, one participant did their best to get out of the way and direct it away from the group. Another participant was sitting near the boulder and it rolled into arm, leg and	ASSISTANT LEADER: we could have moved further away from the boulder earlier. Honestly the whole gulley is a bowling alley though. The party was aware it was loose but we didn't realize the extent. PARTICIPANT: once we first noticed the boulder move, we should have all gotten a safe distance away from it. Perhaps we could have considered an alternative rappel station away from the hazard, but I am unsure in any other viable rappel stations existed. Frankly, we were not expecting such significant rockfall hazards given the climb's rating and description (rockfall is only mentioned in connection with goats)updating this information accordingly would benefit future climbers.	Rockfall

						foot. To my knowledge arm was unhurt, leg had scrapes and bruising and foot/toes had significant bruising and swelling. Luckily, this participant was able to get out of the way before stuck or suffered more significant injuries. P was able to descend under own power before going to urgent care in Leavenworth, where P fortunately learned that had no broken bones.		
May- 19	Scrambling	Significant	Hit, Struck, Cut	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	A team of two instructors and six students were performing Ice axe arrest training at the Stevens Pass Ski Resort area near the top of the Hogsback chair lift. Students were beginning the headfirst - on stomach technique when student hit a bump in the snow at what appeared to be the same time student was bringing the axe to the home position. Arrest was started close to the bottom of the established run where snow had started to pile. Student started to tumble and the spike of ice ax cut through clothing and lacerated right thigh. Instructor was at the bottom of the practice area and was the first to attend to student. Instructor accessed the injury and communicated that student was cut and bleeding. Instructor 2 asked participant, a medically trained professional, to assist the	For self-arrest training, perhaps a taped or protected spike would have prevented the injury. Training in late spring conditions with soft snow do not require an exposed spike for other ice ax skills training i.e., self-belay, walking in balance etc. This experience emphasized the reasons we carry the essential items to address situations such as this. I would also like to add that the four remaining students did an excellent job of remaining calm and staying together, in sight of the instructors the entire process.	Ice Axe
						instructors with First Aid. Th remaining students remained at the top of the practice area. Instructor 1 applied pressure with a sterile pad until others gathered additional supplies. Medical participant then covered the laceration with sterile pads, gauze wrap and tape. All responders were wearing latex gloves during treatment. Splinting was not deemed necessary. P received eight stitches and was released later on Sunday afternoon and communicated via email that he was walking and returning to work Monday		
May- 19	Scrambling	Minor	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	Morning. A group of 8 scramblers attempted to scramble up Barrier Peak. The original plan was to try Mt. Ruth, but with a poor weather forecast and a fairly inexperienced party (4 students on their very first scramble), I chose to do a shorter trip. All was going reasonably well up to about 5850', where we left the west ridge to avoid steep rock above. We went to the right, where the slopes were steep and somewhat exposed. The snow here was relatively hard; getting the ice axe far enough into the snow for a good self-belay was not always possible. At one of these slopes, Participant P slipped, failed to arrest, and slid 20 or 25 feet into some small trees, losing P ice axe somewhere along the way. P was unhurt but shaken up. P was able to recover ice axe and ascend back to the path, where P continued across to where we had carved a seat out of the snow. On the way, P slipped again, but this time a good self-belay held. I should also note that if P had slipped just 10 or 15 feet farther along, the slide could have been more than 100 feet. This was P's first scramble. We discovered that P had not learned the technique of using elbows and feet to arrest without an axe, although the bigger concern is that P slipped in the first place. I scouted the route ahead and determined that there was enough exposure over the next 150' or so that it was not such a good idea for first-time scramblers. In the meantime, it was getting rainier and windier, and most of the group was happy to turn around. Everyone, including P, did fine on the way back, including the short traverse where P had slipped.	I knew that there are steep slopes on Barrier but was expecting the snow to be softer there. I probably should have turned the group around earlier as soon as I encountered the harder snow. I didn't see any indication other than the slip that P hadn't learned what P should have at the snow workshop and field trip. However, P did say that P hadn't learned the technique for stopping a slide without an ice axe, so we need to ensure that our instructors cover it.	Judgement Ice Axe

un- 9	Climbing	Near Miss	Logistics, Equipment Issues, Party Issues	route conditions, route finding, lost, overdue	Snow - steep, ice axe, poles recomme nded	During our trip outbound, we needed to traverse underneath a snowy and icy ledge below Pyramid Peak a few hundred feet above, with a cliff band and waterfall a few hundred feet below, while also crossing a snow bridge over a stream. We received beta via walkie-talkie from a party crossing a few hours earlier that they experienced a near-miss in that stretch, with a large rock landing a few feet from a party member. We discussed the need to traverse quickly. During the traversal, the group split. Three party members in front were significantly faster than three behind, with the trip leaders also split. One party member was having difficulty traversing while using an ice axe in their non-dominant hand, slowing the two people behind them and taking a much longer time to traverse. The snow was soft and the footing relatively good. While approaching the edge of the danger area, a loud crack was heard. Ice and rock began falling, appearing to be headed toward the rear party. The shouted warnings and noise of falling debris induced the rear party to run. Ice and rock	It is difficult to assess the risk of rockfall impacting any given traverse. We did discuss the need to traverse quickly. However, one or more party members were unable or unwilling to do so. We should have assessed the practical ability of our party to actually traverse quickly. Given our advance knowledge of the danger, we should have discussed whether it would be appropriate to delay our exit until either nightfall or early the next morning. We did not have this discussion. On the way in on the day previously, we could also have assessed the likelihood of facing an elevated danger the next day. The other climbing party chose to camp prior to this slope; I'd be interested to know their thoughts (and trip co-leader knows one of the members well). This party also started and	Judgement Rockfall
un-	Scrambling	Near Miss	Hit, Struck,	ice axe	Snow -	crossed the path behind the rear party. It became apparent that it likely would have missed them, but not by much, and the volume, character, and velocity of the ice and rock was such that it certainly would have caused serious injury. There were no injuries; there was much relief. The two most important contributing factors to the incident are: the decision to cross underneath such an unstable area in such weather while ample evidence of rockfall was present, and the reduced speed of the trailing party. During our arrest practice we had a student fall backwards while preparing	finished their summit bid significantly earlier. Possibly we should have, as well. When facing a traverse like this, under danger of rock and icefall, the entire party should be confident of their ability to traverse quickly in both directions. This need underscores the need for more practice traversing with an ice axe on steep slopes during Basic and prior to such a climb. We should also advertise the potential dangers on the trip page (https://www.mountaineers.org/activities/routes-places/snowfield-peak-neve-glacier) so that good decisions can be made prior to the start of the trip. I have two takeaways from this incident:	Ice Axe
un- 9	Sciambiling	iveal IVIISS	Cut	arrest needed / attempted	steep, ice axe, poles recomme nded	themselves. The slope that we had to use for this practice was extremely steep and they were unable to arrest fast enough to avoid potential harm. I was the instructor at the bottom of the slope and made the decision to grab/ slow the fall of the student before they hit rocks ~50-100 ft below us. I managed to grab their backpack and stopped their fall 20 ft above the outcropping by kicking my feet in the snow. This incident struck me as a bit of a freak accident, especially because of the proficiency of the student throughout the day, and during our arrest testing. The way they fell (sitting up on their butt backwards) and the suddenness of the incident makes me feel like it was due to their brain freezing in shock, and not because they wouldn't be ready for that in an actual alpine environment. The only injury sustained from this was a callus that was ripped from my left hand when I grabbed the student's backpack. I would give that any day of the week to save someone brain or spine trauma and I'm just thankful I could move fast enough.	We absolutely need to make sure students are stable before demonstrating the arrest skills. Our instructors were not holding students feet at the beginning of this exercise, and that caused a potentially dangerous environment on the particularly steep slope. If the weather continues in this fashion, Volcanic Neck might become unusable by the scramble class. I have now instructed this route twice, and each time it has been hard to find an optimal snow slopes in the area. Last year our only option was another steep slope, which thankfully had very little runout. This year, that feature had almost completely melted out, which forced us to the only snow slope in the area which students even had room to show their skills. If there had been any more melt, I'm not quite sure there would have even been enough snow to practice with. This affected my enthusiasm to lead the trip the next day and was a factor in my changing our goal to the Mary to Bean traverse.	ice axe

Jun- 19	Climbing	Minor	Hit, Struck, Cut	rock fall, rock movement	trail	While hiking back down from camp as one large group after the crevasse rescue field trip, we entered a rocky ridge area while trying to navigate our way back down to the maintained trail leading back to the parking lot. One of the instructors who had scouted ahead told us all to put on helmets due to the loose rocks and nature of the ridge having exposure on both sides and rolling with hills and valleys there could be the possibility for rock fall from above. While in one of the valleys of the ridge, some rocks were accidentally knocked loose from another person in the party coming over the ridge. The person immediately yelled "rock!" and one of the larger ones, maybe 18"-24" across struck me on the outside of the left leg just below the knee since I couldn't get out of the way quick enough. The impact caused me to fall and the immediate pain / numbness made it hard to tell what the damage was at first so I just scooted over to the snow patch to get cold snow on the area. Immediately I was surrounded by everyone that was hiking in our group which included at least 3 people who worked in the medical profession. They immediately began assessing the situation to determine if there was anything broken. The group decided it was best to take my pack and create a trail with less exposure after it was determined that nothing was broken so that I could walk out on my own the rest of the way so I could attempt to put as little weight on the leg as possible to reduce swelling.	This was a complete accident and I felt that everyone handled the situation as they were supposed to, including pushing me to relinquish my pack despite my not wanting to burden others with additional weight. I'm not sure what could've been done differently except for possibly having each person wait at the top for the person ahead of them to clear the valley area where rock fall was a possibility. But looking back, that was the first rock fall and so we weren't certain how likely it was until that moment.	Rockfall
						I was able to hike out the rest of the way on my own and felt comfortable doing so thanks to the rest of the team with their knowledge and helpfulness.		
Jun- 19	Climbing	Near Miss	Hit, Struck, Cut	rock fall, rock movement	off-trail, cross- country	On approach of The Castle from Pinnacle-Plummer saddle, our group decided to scramble up a short 4th class gully to cross the southeast ridge at ~6200'. This gully consists of large blocky steps, scattered with loose rock, some of which are of considerable size. One participant at the front of the group triggered a rock fall that narrowly missed other participants below. I did not observe the origination or the rock fall itself, given my position hidden below a steep rocky step (which provided adequate shelter for myself).	We strongly recommend exercising caution if approaching the southeast face of The Castle (start of the technical climbing) via this 4th class approach gully, or avoid this route and traverse ~100 yards further towards the toe of the southeast ridge where it is crossable via easy class 3 scramble.	Rockfall
						Account from participant that triggered the rock fall: I've been scrambling for a long time, long before I joined the mountaineers, and this happened to me many times with small rocks, but never with a rock of this size It all happened very quickly so I'm not sure how exactly it happened, but I believe I actually triggered it with my hand - I remember trying to stop the rock with my boots but wasn't able to. It was a really scary moment and I don't think I'll ever forget about it	From participant that triggered the rock fall: as the first climber, I should have told everyone that some of the big rocks are loose and not let people climb right below me. I was aware of that but didn't call it out - which was clearly a bad decision considering the risks.	
Jun- 19	Climbing	Minor	Hit, Struck, Cut	hit/cut - natural object	Snow - technical, glacier, rope needed	PARTICIPANT 1: I was lowered into a crevasse as part of the IGC field trip everything was going fine, the team above me had me on belay and I was sitting in my harness in the crevasse. I was in the crevasse about 10-15 minutes and I was working on my feet prusiks then all the sudden I hear a crack and I see that a large sheet/block of ice is collapsing on me. I was hit in the head, face, shoulder, and chest by the failing piece and spun around. I was hauled up by the team and checked out, I had minor cuts to my face but I did see stars when I was hit in the face and head by the ice. I was able to walk out and went to the walk-in clinic where I was diagnosed with a mild concussion.	PARTICIPANT 1 I don't think there was much we could have done differently as the variable conditions of ice it just happens. PARTICIPANT 2 For this scenario, there is no actual training benefit for the person down inside the crevasse, as they are expressly told not to self-rescue. Since the rescuer is simply on the snow, it	Crevasse Rescue

							is possible that alternative ways of practicing this skill could be devised that eliminate this risk of icefall.	
Jun- 19	Climbing	Minor	Hit, Struck, Cut	rock fall, rock movement	rock - talus, boulders, scree	2 cases of very large rocks being knocked loose descending loose 3rd class terrain. Each on a different peak by a different party member. Both resulted in either a bruise or scrape but neither required any medical attention.	I think the worst that could have happened was mitigated. The rock blocks were large enough a basic test didn't show they may move but they did. Each party member was able to get out of the way with only a glancing blow. In my case I was descending with my poles but had my hands of out the straps on purpose which probably kept the rock that took out my pole from also pulling me down and only pulled it out of my hand.	Rockfall
Jun- 19	Climbing	Near Miss	Logistics, Equipment Issues, Party Issues	party issues - conflict, misunderst andings, organizatio n	rock - technical, rope & protection needed	A leader was instructing my partner team. While I was on top rope, mock leading, the leader gave direction to my belayer to keep slack out. I asked my belayer to pull in slack, because there was a puddle of rope at my lap. The leader wanted me to feel like I was leading it but didn't get my consent to do this before I started climbingor at all. I talked to my belayer after the climb. We were both confused. I was taught, and continue to practice, to follow the instructions of the climber. My partner apologized for not taking in more slack. P was trying to help by doing what I asked, but another participant was holding the rope at the anchor and not allowing P to belay me on top rope. I don't think this is an appropriate method for teaching in The Mountaineers. I need to be able to trust the people I'm climbing with. With too much slack in my top rope, I could get tangled or trip on the extra rope. If I were climbing, thinking my top rope belayer had me, I'd climb in a different manner, not considering the ledge I might hit when taking a fall.	The leader could have asked me to lead the climb, so I understood what was going on from the beginning. The leader and assistant could have let my belayer take in slack, and I could have continued to mock lead. I could have been firmer with the instructor, telling them more boldly to let me instruct my belayer as I see fit.	Leader
Jun- 19	Climbing	Minor	Hit, Struck, Cut	rock fall, rock movement	rock - technical, rope & protection needed	On the final rappel of the climb, back down the 4th class chock stone gulley, P was acting as our cleaner and managed to dislodge a large rock and pull it down on self. P was with one student, me and another leader were out of firing range with two other students further down the gulley. What had happened was the rope had become stuck and they began to yank on it to get it loose. The rock it brought down was about the size of a papaya. It hit P on right foot. Luckily P was wearing mountaineering boots which shielded foot somewhat. Our Mofa lead was up in the gulley with P and had P removes boot. There was a giant goose egg on foot. Mofa had P immediately put back on boot and take Ibuprofen. We took the extra weight and half the party hiked out at a faster pace with P, while I stayed back with two of the climbers that were going slower. P was able to make it out fine and said it felt like a soft tissue injury. Nothing major, just painful. We were all thankful it was not worse.	In hindsight, reminding the last person down to inspect the pull path of the rope. Trying to move any large loose rocks to the side and trying to stand further out of the path. These all could have potentially changed the outcome, but that being said this particular area of the route is notorious for people knocking stuff down on each other. I reminded all students while on rappel to delicately walk down, and also, we discussed slow controlled scrambling vs trying to run up a gulley.	Rockfall
Jun- 19	Day Hiking	Minor	Illness or Personal issues (conditioning , lack of skill)	injury/ illness - sudden onset	trail	LEADER One hiker (1H) turned around after reaching a point a little more than halfway up the mountain because (1H) was too physically tired. 1H was not physically recovering despite frequent stops and felt it would be more prudent to go back to the trailhead than continue with the group to the top. Hiker was a longtime club member and Hike Leader. 1H mentioned that 1H had completed this hike several times in the past. Mentored leader sent an e-mail specifying earlier in the week to registered participants, "It is a strenuous 4 miles with 3,800' of elevation gain	PARTICIPANT I should have checked the weather closer to the hike day. The temperature was hotter than predicted earlier.	Conditioning

						to the top. We will go at a moderate pace, but please be reasonably certain that your level of fitness is appropriate for this hike." Hiker was at the trailhead when the group returned. PARTICIPANT I developed heat exhaustion about halfway up the trail and decided to turn back. No first aid was needed. Since I am a hike leader, I was able to take the trail back on my own.		
Jun- 19	Scrambling	Minor	Slip, Fall, Capsize	fall (travel a distance)	off-trail, cross- country	Participant injured left ankle (sprain, probably not severe, but aching and painful) fairly early on during this Experience field trip make-up scramble on Silver Peak. P was on largely stable rockfall, but fell somewhat behind (slow due to conditioning issues) and took what P described as a "tumble," perhaps due to hurrying to try to	I should have kept better track of P. P progressed better and more safely when P was able to stay in close contact with one of the more experienced scramblers and follow their footing and micro-route choices more closely. I incorrectly assumed that one of my assistant leaders would have fallen back with P.	Conditioning
Jul- 19	Climbing	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	off-trail, cross- country	descending from Camp Schurman to the White River Campground with two other members of our party. On the climber's trail between the lower part of the Interglacial and Glacier Basin, P slipped on loose rocks and took a fall. P caught	The part of the climber's trail where the participant fell has very loose rock and it's an easy place to lose your footing. P didn't have trekking poles on this trip and said afterward that if P'd been using them, it might have helped prevent the fall and/or broken wrist.	Trail nav
Jul- 19	Climbing	Significant	Hit, Struck, Cut	hit/cut - equipment, tool	Snow - technical, glacier, rope needed	One of our participants cut calf with crampon. Since P was only wearing thin pants and no gaiters, the crampon caused a pretty good cut. This was one of P"s first steps on the glacier and we were almost all still at the base of the glacier so we stopped and attended the injury from a comfortable spot. We cleaned the wound with alcohol swabs and then applied steri-strips to close it and a compressed gauze to absorb excess bleeding and keep it together. P felt fine continuing and we checked periodically on bleeding and feeling. P kept reassuring us it was ok to continue. Back at camp in the evening, we cleaned the wound again and applied antibiotic ointment and more steri-strips and new gauze and bandage. The day after the climb the participant visited the doctor's office and had leg examined. They were impressed on how well we treated the cut which was clean and did not need real stitches.	A good reminder to wear gaiters when using crampons and to have an up-to-date first aid kit. Mine had been recently restocked and was handy in one of the external pockets of my pack when the incident occurred. As for the rock fall, we were slightly off-route at that time and we ended up in a chossy section of rock. We later found the correct spot to transition from snow to rock which would have kept us on the crest of the ridge and more solid rock. Due to low snow, it was hard to transition there but had we known about the hazards on the other side, we may have tried harder to join the ridge from climber's right rather than climber's left.	Gear

						first aid kit. Mine had been recently re-stocked and was handy in one of the		
						external pockets of my pack when the incident occurred.		
						We also had a near-miss when a football size rock was dislodged in a chossy area near the summit scramble ridge and flew past my head. Had it hit me, it is very likely I would have fallen and since exposure was great in that spot, this could have been fatal;		
Jul- 19	Backpacking	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	trail	Participant (P), an experience wilderness backpacker and scrambles student tripped and fell while on an unmaintained trail, suffering a radial fracture. We splinted P's left arm, set up camp nearby and spent the night. Off loaded most of the weight from P's pack, distributed it among the rest of the party, and left camp soon after breakfast on Sunday morning. Returned to the TH early in the afternoon without further incident. First stop on the way home was at the emergency center for an X-ray which confirmed the fracture. ER admired our splint and mountaineering first aid skills but replaced the splint with one of their own. They then released P to make an appointment with P's personal physician.	Accidents happen. Be prepared. Assign a first aid leader before leaving the TH. Know who will probably be the most skilled first responder. Everyone of course, should stay current with first aid skills. Have the necessary supplies on hand to deal with any emergencies that might occur.	Trail nav
Jul- 19	Canyoning	Significant	Slip, Fall, Capsize	rappel	rock - technical, rope & protection needed	This incident happened in Change Creek on the tallest 105' rappel. This rappel is in the water flow, and the topography is ledgy. One of the students, slipped while navigating the ledgy terrain, and smashed left hand, which was on the brake rope, between the rock and hip. S was able to continue to control the remainder of the rappel and used training to add friction to the descender to assist a 1-handed descent. S was on a fireman's belay, although S did not need to rely on it. When S arrived at the bottom of the rappel, S revealed swollen, bruised hand to the other course mates, who accessed the group first aid kit and attended to S. The instructor, along with the help of others in the group, used partner-assist techniques and rope systems to safely help S through the remainder of the canyon. S visited the doctor after the course, who determined that hand was not broken only very bruised.	Everything went as smoothly as possible given the situation. It was a great reminder of the importance of having someone on fireman's brake, and while it was never engaged, the incident cemented in the students' minds the criticality of routinely providing a fireman's brake. The course had included a focus on ways students could change their friction as they descend, and S employed this training to increase safety after hand was compromised. The group had plenty of medical training among them, and the instructor had the technical expertise to help Hannah safely navigate the remainder of the canyon. This was a situation where everyone involved had the training to be in that environment, and everyone was employing best practices within that training. Slips happen, and this was an unfortunate slip.	
Jul- 19	Climbing	Minor	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	One of the participants on the trip was downclimbing (face-in) on steep snow below the summit block to an area of talus. The snow was soft but it was easy to slip. Approximately 2/3 of the way down, the climber decided to downclimb face out to speed up the descent. The subject slipped and was unable to fully arrest and slid into the talus. Thankfully the subject was able to slow themselves down so that they didn't impact the talus very hard. The subject suffered a few scrapes on the arms and a cut on the finger which was treated with a Band-Aid.	Continuing to downclimb face in would have been more secure and the better decision given the steepness of the slope and the snow conditions.	Ice Axe Judgement
Jul- 19	Climbing	Minor	Slip, Fall, Capsize	rock fall, rock movement	Rock - talus, boulders, scree	Party of 4 was returning to Itsood Ridge camp late in the night after a 20-hour day spent climbing Sinister and Dome. Around 11 pm, one participant was aware of some loose rocks on a slab, but somehow P still did slip and triggered a rockslide which took P down for about 15 feet. Luckily no injuries occurred.	Extra caution and a working headlamp could mitigate it. The headlamp rechargeable battery died about an hour before the near miss happened and the participant was forced to use the phone flashlight and rely on some other participants headlamps lights. The participant slid until they stopped.	Gear
Jul- 19	Climbing	Near Miss	Slip, Fall, Capsize	ice axe arrest	Snow - steep, ice	After climbing Mt. Cruiser, we were coming down a steep snowfield heading toward the main trail. The next to last climber to come down slipped and was	This is a tough question. We had some climbers rappel down the snow field and some walked down. The fallen climber	Ice Axe

				needed / attempted	axe, poles recomme nded	unable to self-arrest in the soft snow. Luckily, P slid into gravel area in the talus field below the snow and narrowly missed two climbers on the edge of the talus field. P popped right up relatively unscathed and was able to walk out without any sign of injury.	pulled the rappel ropes and was down climbing the final 60 meters. One of us had to walk down after pulling the ropes. I think this is just one of the hazards of climbing. Possibly, better steps could have been kicked and everybody could have followed them.
Jul- 19	Climbing	Minor	Slip, Fall, Capsize	fall (travel a distance)	rock - technical, rope & protection needed	Early morning, I was starting up the NF Lexington Tower in the Liberty Bell group. Rain had been falling intermittently for over an hour. I was following the first pitch. I left the ground, removed a cam protecting the leader's crux move at approx. 15ft. A traverse follows the crux move; the next protection point was at the end of the traverse. In the moment of working out the moves, my foot slipped without positive handholds. I fell and swung as the rope tightened. Before coming to rest I impacted a feature on the wall. After being lowered to the ground, I was thoroughly assessed by the present qualified individuals. I had a few abrasions and was shaken up but we decided I would not continue climbing. I walked down the gulley and back to the car at Blue Lake TH.	Wait longer for the rock to dry before climbing. Protection was not placed to protect the follower. Don't fall. Judgement Skill
Aug- 19	Backpacking	Major	Other	driving issues (including personal vehicle)	Road	During the drive to the meeting place, on Meridian, descending the hill from Edgewood to Puyallup, one of the two cars driving on the trip, with four of the six backpack participants riding in it, experienced a serious collision caused by a car traveling the opposite direction on the two-lane road swerving abruptly into our lane, right in front of our car, causing our car to hit it broadside. The lone person in the other car and three of the four people in our car sustained minor injuries. The fourth rider was spared injury by the deployment of the air bag. We could not have avoided this collision. We all had safety belts on. Our car was a Toyota Highlander, which was better equipped to handle such a collision than other cars we could have been riding in. Driver suffered a concussion, cut forehead, difficulty walking, back pain, chest pain and some problem with arms. Two in the back seat, both sustaining chest pains from the shoulder straps. I did not sustain any injury. Everyone was checked out at medical facilities shortly after the collision, including me. Driver was taken to the hospital on a stretcher and another accompanied him there. Other and I were driven back to our cars by driver's son-in-law, who lived near where the collision occurred. Then other drove to an urgent care facility. I drove home and later went to the St. Francis Hospital ER, where no problems were identified. Participant took two pictures of the collision damage, which could be obtained from P.	The pavement was wet where the collision occurred. If the other car had been speeding and had bald tires, that might have caused it to spin out as it did. I don't see any way we could have avoided this collision, since the spinout of the other car occurred suddenly just as we arrived where it was. There could have been more serious injuries if we had been riding in one of the cars of our riders. So riding in a car designed for safety could be crucial in a situation like this. Driver is a very good driver and should be commended in the way he handled this situation.
Aug- 19	Scrambling	Safety Concern	Other	rock fall, rock movement	Rock - talus, boulders, scree	We were ascending a steep scree slope with lots of loose rock. There were nine of us in the party, eight who had gone through the Scramble course and one who had graduated from the Intermediate course and is primarily a climber, not a scrambler. We were all wearing helmets and were carefully either bunched up close together or spread out laterally so as not to be in anyone's fall line. The Scramblers knew how to carefully place their feet and transition their weight so as not to dislodge the loose rocks. The Intermediate graduate presumably did not. P managed to kick off a bunch of rocks, including a fairly large rock (size of a basketball) that flew down the gully with great speed. Luckily, P was the last in line and nobody was below.	In a mixed group of scramblers and climbers, when climbing a scree-filled gully, always put the climbers last. They tend to have less experience on loose scree and are more likely to knock things loose. Conversely, when descending, send the climbers down first.

Aug- 19	Climbing	Minor	Hit, Struck, Cut	rock fall, rock movement	rock - non- technical, scramble skills needed	Shortly after ascending to attain the S ridge of Custer, and while still approaching the crux 4th class downclimb to a notch before the final ascent, I knocked a rock loose while flipping a leg over from one side of the ridge to the other. It fell 5-10 feet and glanced off the hand of a party member resulting in a minor injury (loose flap of skin over one knuckle). We rinsed the wound, applied a finger bandage and wrapped it with sports tape. The injured party opted to wait in place while we summitted and returned and we hiked to camp. We cut the climb a day short and hiked out to the cars in the morning. P promised to see a doctor as soon as possible.	The injury occurred on the second peak of the day (Rahm). We had already encountered many loose rock sections, including loose gullies. As a team we mitigated risk in these areas by climbing close together in some places and climbing/descending single file in others. We communicated well all day to warn each other of potential rockfall, including at this spot. It really was a matter of bad luck combined possibly with a brief slip in attention to positioning (below a team member)	Rockfall
Sep- 19	Climbing	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	Rock - talus, boulders, scree	On approach to base of The Tooth/South Face, crossing a boulder field, P slipped on rock and injured right foot. P continued on, thinking it was a minor issue since it was not obviously painful. We discussed it briefly on base of the climb, and P decided to push to the summit as it was not painful at that point. Pain started to settle in during the descent, P made it back to car without any help, although on last part of the hike out (about last 2 miles) P had to deliberately place foot to minimize pain. Next day P visited urgent care and xray showed fractured 3rd metatarsal in right foot.	Question self-diagnosis, i.e., pause and take appropriate actions to confirm if this is indeed nothing major. Lesson learned for me, is to step back a bit and cross check participant condition. Don't underestimate the non-technical terrain; there were plenty of unstable rocks, this could have easily happened to other people. This can be actionable as part of the discussion with group prior to start.	
Sep- 19	Scrambling	Assistance Given	Logistics, Equipment Issues, Party Issues	route conditions, route finding, lost, overdue	Trail	As we were returning from The Portals / Coleman Pinnacle, we provided assistance to a hiking party of 3 in their early 20s, who were lost on the Ptarmigan Ridge Trail. They were attempting to do the Chain Lakes loop trail, starting & ending at Bagley Lakes trailhead, going counterclockwise (about 7 miles). When they reached the T junction with the Ptarmigan Ridge Trail, they had turned R on the Ptarmigan Ridge Trail instead of turning L to stay on the Chain Lakes Trail. (There was a signpost at this T junction, but it was poor - it only marked 2 of the 3 trail segments. The segment of the Chain Lakes Loop Trail to Artist Point was unmarked, as if it was not a maintained trail.). When we encountered them, they were a full 3 miles south of the T junction and still headed in the wrong direction. They asked for directions, and we said, "Just follow us, we're headed back to Artist Point, which is the route you want". They did not have a map or appear to have a mapping app on a phone. They did not know where they had started, other than it was at a "stone bridge", so I recognized that as Bagley Creek. (I must admit, I don't know the name of that trailhead either, other than it's part of the Chain Lakes Loop. I would call it the "Bagley Lakes" trailhead.) It was potentially serious hypothermia conditions. It rained heavily for 45 minutes, the wind was gusting up to 40 mph, and the temp was about 50F. There was also heavy fog, which could have further contributed to difficulty in finding their way back to their car. Fortunately, they had good rain gear, but they only had one small backpack between the 3 of them, so could not have had much extra clothing. See attached photo of our party, which shows the conditions. They followed us to Artist Point and proceeded to head towards their correct endpoint near Bagley Lakes in heavy, horizontal rain; still seemed in good condition & spirits. Their unplanned detour added 6 miles onto their planned 7-mile hike (almost doubled their mileage). Fortunately, they were in good cond	Carry a map. Keep track of where you are. Know where you're going. Pay attention to signage on the way. Carry extra clothing. Each member of the party should carry the Ten Essentials.	Lost

Sep- 19	Day Hiking	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	Trail	Leader (me) was injured. Leader stepped around group members to take a picture and lost balance or the rocks below shifted. Leader fell on the rocks, landing on back. The group continued to the destination (leader did not let on about injury, didn't feel it was necessary to turn around.) We enjoyed sitting at the lake for 1 hr. and 20 minutes. Pain got progressively worse as we headed out, not bad enough to announce to the group or to notify SAR. Leader made it out without assistance or holding up the group due to an injury. Follow up with Dr Monday morning found multiple bruised ribs. Had to cancel leading the next weekend's hike.	Waiting for everyone to move to get the perfect picture, rather than try to go around. Be more careful when walking on lose rocks.	Trail nav
Sep- 19	Climbing	Significant	Slip, Fall, Capsize	fall (travel a distance)	Gym, artificial climbing walls, sports area	Participant was practicing falling while in the gym on overhanging walls. Climber fell and was not caught as softly as one could expect and did not assume a more relaxed falling position. The climber said they were fine and continued to climb throughout that evening. Found out a week later that they had went to the doctor the day after the incident because of pain near their lower back and hip the following morning. The individual noted that they were not sure if it had to do with the falling practice or not. Subsequently, the individual was only allowed to top-rope the following workshop session, which they were able to do without issue, and will only be allowed to top-rope on the "final" field trip.	More instruction was given and demonstrations were given before asking students to practice this skill. Small falls (top rope falls) were practiced in order to build up to actual smaller leader falls. Falling correctly in an outside scenario start with practice in the gym and lots of it folks need. Continue to re-evaluate course curriculum and speak with the climbing.	
Oct- 19	Climbing	Minor	Hit, Struck, Cut	rock fall, rock movement	rock - non- technical, scramble skills needed	One of the rope leads was hit in the face by a falling rock in the approach gully. Bruised the bridge of nose and hit hard enough to shock RL - RL needed a few minutes to recover. Reduced swelling with snow and took some ibuprofen. RL continued on, leading a rope team, summitting, and hiking out without an issue. Will follow up on whether RL needed further medical attention or not.	Take care to minimize rock fall in loose terrain.	Rockfall
Oct- 19	Climbing	Minor	Hit, Struck, Cut	rock fall, rock movement	rock - technical, rope & protection needed	One of our climb leads was struck by rock fall. The student above had foot hold blow and it sent a softball size rock down the first pitch. It struck RL in the wrist. RL was ok, it hurt, but RL kept climbing. Our first aid point person for the climb checked RL out. No swelling, minor scratches.	I'm not sure we could've avoided this.	Rockfall
Oct- 19	Day Hiking	Assistance Given	Illness or Personal issues (conditioning , lack of skill)	injury/ illness - sudden onset	Trail	LEADER: This involves a NON-member of our group. On the descent, we picked up a 7th group member. Just below the summit, we encountered a young man, a solo hiker, R, experiencing severe leg cramps. We'd seen R descend from the summit some time before us, but R told us that R'd had to stop in the cold shade after descending just a few minutes from the summit, due to not being able to hike further. A group member who was one of the first to talk with R took charge and we all pitched in to offer electrolytes, water, food, salt tablets, and bio freeze gel. We stayed with R until R felt ready to hike. R agreed to hike with us and seemed grateful for the support. We loaned R 2 poles and one of us carried R's pack as well as their own. We took rests and descended with a pace that suited R. R accompanied us down to trailhead parking lot. We offered to drive R home but R said R was OK and able to drive. Talking with R, we guessed that not drinking enough water (though R did have over .5 L when we encountered him), lack of electrolytes, and partying the night before were all likely factors in the cramps he experienced. R said R'd had this sort of leg cramp one time before.	I think we did well. We let one member of our group manage much of the conversation with R, so R wasn't overwhelmed with 6 people all at once barraging R with questions and concerns, but we did all pitch in to help. We showed concern but we didn't hover over R the whole way down. We did carry R's pack, let R use our poles , and made sure R had adequate water etc. the entire descent, and we went at a pace with which R was comfortable. We were concerned and helpful, but also low-key. It was R's always choice to descend with us, let us carry R's pack, etc.	Conditioning

Nov-	Winter	Minor	Illness or	injury/	Trail	Two hours up the trial one participant seriously bonked: exhaustion, pain in the	I'll certainly never send a disoriented participant back to	Conditioning
19	Scramble	14111101	Personal	illness -	l i i u i	stomach, white face and dizziness. After a conversation with P, and with P assent,	trailhead alone.	Conditioning
			issues	sudden		I sent P on P own back down the trail to the cars with the keys to my car and my		
			(conditioning			phone with the route demarcated. Shortly thereafter I thought better of sending		
			, lack of skill)			P alone, so I sent a responsible party member after P. Soon after I confirmed by		
			, , , ,			phone that they had met up. Further phone communication confirmed they had		
						reached the car and the victim was sleeping in the back seat. We curtailed the		
						trip, stopping at an intermediate goal and returned to the car. Back at the cars, I		
						asked a physician in the party to help evaluate the victim. Dr opinion was that P		
						could return to the park & ride and if P seemed stable there (which P did) P could		
						drive. Dr recommended P contact an urgent care facility to try to determine what		
						had caused condition.		
Dec-	Snowshoeing	Significant	Slip, Fall,	Slip not	Snow -	LEADER: during a Basic Snowshoe trip to Commonwealth Basin a member of our	LEADER: earlier in the day the subject had shared with the	
19			Capsize	resulting in	non-	party fell and broke left humerus (upper arm). Two members of our party, a	group that P had been to many medical appointments to deal	
				a fall	technical	Nurse Practitioner and a Registered Nurse, performed an immediate evaluation	with tendon problems in P mid and lower body. I don't recall	
						and determined that the subject was stable and was able to self-evacuate. Our 8-	for certain, but I believe P may have said that this was P first	
						person party redistributed the subject's gear, and we returned to the cars without	backcountry trip in several months. A lack of recent activity	
						incident.	may have been a contributing factor to both the cause of the	
							fall and its consequences. I have reflected back over the	
						PARTICIPANT (INJURED): trying to find the trail, group was following leader	choice of terrain we were on when the fall occurred, but on	
						through hummocks on hillside not far from trailhead for Commonwealth Basin.	reflection I believe it was well within the range of difficultly	
						Going along slope of a small ravine, my inside snowshoe caught on something,	one expects for a Basic Snowshoe trip, where off trail travel	
						twisting foot & throwing me to other side. Drop off on other side prevented pole	over moderately uneven terrain is the norm. We were on	
						from being able to lodge so I fell about 5' to bottom of ravine. Immediately felt	terrain similar to the area where the Basic Snowshoe Course	
						my arm was broken & in seconds two members who are nurses were checking me. Leader organized rest of group calmly and expertly & assistant leader	field trips are taught, for example.	
						scouted out safe way to get group to trailhead. One nurse had a sling, which	Training from the Wilderness First Aid course, Outdoor	
						helped immensely in walking out. Assistant leader took me to urgent care where	Leadership Seminar, and Decision Making in Emergency	
						X-ray confirmed complete fracture of upper humerus, fortunately ankle not	Situation Seminar came into use and worked very well. We	
						broken but badly sprained.	were able to provide immediate care to the subject while at	
							the same time making sure that the rest of the party took	
							care of themselves to avoid hypothermia, etc. WFA training	
							gave the leader the wherewithal to SAFELY split the group	
							temporarily to start researching and forming an evacuation	
							plan even while the subject was still being tended to. The trip	
							leader and co-leader collaborated to make sure there was a	
							plan to get the subject all the way to a definitive care facility,	
							not just back to the trailhead. Members of the party all	
							maintained a positive supportive attitude, provided helpful	
							suggestions, and contributed as needed. This is the	
							Mountaineers culture, established over years and showing	
							itself when tested.	
							PARTICIPANT (INJURED): being on trail (but not uncommon	
							for confusion with multiple tracks leading in generally right	
							direction in Commonwealth Basin). Not contouring along	
							narrow slope but instead going down trough. For me, forcing	
							my body to fall up slope face forward might have prevented	

							fall, though might have broken ankle.	
Jan- 20	Climbing	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	Trail	After a successful short hike and skills practice of mock top rope belay practice we hiked back to the cars. One participant who has experienced minor ankle sprains in the past rolled their ankle. Their pain was immediate and the team quickly responded. Our first aid lead for the day evaluated the injury while they rested in a seated position. While our injured participant rested the rest of the party divided up our injured participants gear. After some water and anti-ibuprofen our hiker tested their ankle. With the assistance of two trekking poles it was determined that they could walk out slowly on their own. Thankfully what remained of our hike out was a manageable 200ft of elevation loss and less than a 1/4 mile. Under my advisement the injured participant followed up with a doctor's visit on Monday. X-rays determined that there were no fractures. A brace/boot was prescribed along with some physical therapy in the subsequent weeks.	Given the moderate terrain and favorable weather I allowed participants to hike out at their own pace with myself and an assistant leader as a sweep. The participant was moving at a faster pace than most. Had I potentially modulated the pace of the hike out, this injury may have been avoided. Our team did however respond quickly and avoided exacerbating incident with the potential for exposure.	Trail nav
Jan- 20	Nordic Skiing	Significant	Slip, Fall, Capsize	fall while skiing	Trail	This incident occurred during our Basic Nordic Ski field trip at White Pass Nordic Center. Quite typically, a person's first attempt at this sport results in a number of falls. We had a student sustained many falls and has reported to me that an X-ray shows a broken tail bone. Instructions from physician are to avoid falling for the next two months to reduce the possibility of further injury.	With beginners in this sport, falling is difficult to avoid. I may need to discuss the possibility of this type of injury with future students.	
Jan- 20	Climbing	Near Miss	Logistics, equipment issues, party issues	lack of skill, preparatio n, conditionin g, fatigue	Ice - technical	We were nearing the end of our last ice climbing day in Hyalite Canyon, MT. Participants in my group had each led their first (and some their second) WI3 climbs. We relocated to Fat Chance WI3 and I asked the group if any participant wanted to lead the climb. One offered to lead it and this climb was fully within this participant's ability level. At the top of the climb is a large tree with slings for rappelling and this participant affixed the rope to this anchor (which is what other parties do, too). After being lowered, the other group leader and I asked the participant what was used for anchoring the rope. The answer was that this participant had clipped the rope to the tat with a quick draw and then used a locking carabiner. A few participants climbed the lower, steeper section and lowered off. The last participant (P) climbed up to the tree to clean the gear and lower off. When P got up there P yelled out something to the effect of having been toproping on a single non-locking carabiner. When all people were back on the ground we asked the individual that lead the climb what exactly was used in the anchor. This participant had used a quick draw and a locking carabiner, but evidently put the locker on one side of the quickdraw locking it to the tat and clipped the rope with a non-locking carabiner. This surprised us because this participant has climbed for several years and built two perfect anchors with screws, cord, and locking carabiners on the two prior leads. We had a lengthy discussion about the risk that the other climbers were subjected to and that it is never, ever appropriate to make a top rope anchor with only one non-locking carabiner attaching the rope to the anchor (and I explained how this could become unclipped and how climbers have fallen in the past).	•	Gear Skill Judgement

Jan- 20	Winter Scramble	Significant	Slip, Fall, Capsize	Slip not resulting in a fall	Road	Our group met at the Granite Mountain Summer Trailhead, though our destination was Bearscout Peak, located on the South Side of Interstate-90. We crossed the overpass and on the other side of the overpass was a non-plowed road. Some High Clearance vehicles had been on this road making it somewhat slippery to walk on. Participant slipped and used left hand to brace to fall. At first P did not feel very much pain and we continued on, but after a short distance, the pain increased. While no -deformity or bruising existed, it was felt best that we turn around. Due to the increasing pain, I drove the participant to the hospital where P had some xrays done. P will be requiring follow-up medical attention.	This route was a bit unusual in that the first portion of the route (on snow) had been traveled over by vehicles. Microspikes would have been very helpful or walking to the side of the vehicle tracks.	Trail nav
Feb- 20	Climbing	Major	Hit, Struck, Cut	hit/cut - natural object	Ice - technical	A participant was struck by falling ice, which cut lower lip, resulting in stitches. LEADER: Participants were all warming up and on their first few laps of the day. The ice was a touch brittle from cool temps overnight. One participant was halfway or so up the ice route. When P swung into the ice and a "dinner plate" became dislodged. P was able to mostly duck head and get out of the way, but a small chunk hit lip, resulting in a couple stitches. We did a field cleaning, bandaged and sent P to the hospital. PARTICIPANT: on my second lap of an ice pitch, I dislodged a football-sized hunk of ice while swinging my tool. The hunk of ice struck me in the face, slightly left of center between my chin and lip. The impact caused a 1cm cut that bled profusely and also caused me to bite the inside of my mouth. I asked belayer to lower me, and once off belay, B provided some immediate first aid in the form of wound cleaning and a gauze pad to apply pressure. Other party members looked at the wound and concluded that it might require stitches. We discussed a plan and determined that another participant would drive me back to parking area and I would then drive myself to the hospital. We hiked out quickly, and after about a 45-minute drive, the driver dropped me off as planned. I drove myself to the emergency room. I was seen quickly, and the doctor determined that the face wound and mouth wound were not connected and that only the facial wound required stitches. He administered a local anesthetic and applied two sutures. The doctor determined that there was no brain or other head trauma but gave me a sheet on warning signs to take away.	LEADER: falling ice both natural and human produced is a normal hazard mitigated from tucking head down, wearing a helmet, swinging into concave features and not staring directly at the ice when you swing, however ice still fly's and produces a hazard. Not much could have been differently other than tucking head faster and perhaps not swinging at convex ice feature.	Icefall
Feb- 20	Nordic Skiing	Significant	Slip, Fall, Capsize	fall while skiing	Snow - non- technical	I turned off a groomed road onto what I thought were soft snow mobile tracks as they were in the sun. They were hard and I did a grand slam fall in front of several people. My pride was hurt as I very seldom fall classic skiing. I sustained a broken rib and a very sore right shoulder. What a shame that I am right-handed!!!! This is the first injury from classic skiing in 40 years of classic skiing!	I should have stayed on the groomed road which is what I did and classic skied to the parking lot in terrible form of kick and glide. I was glad that sr. leader did not look closely at my form as sr. L would not even allow me to teach beginner classic skiers!	
Feb- 20	Climbing	Near Miss	Slip, Fall, Capsize	fall (travel a distance)	Ice - technical	On the final approach, I made a mental note make sure we didn't down climb too far after the final rappel to save having to climb back up to our stowed gear. We had stowed gear much higher than normal because of the amount of snow allowed us to snowshoe up past the trees that are at the top of the saddle (clear up by the base of the climb. The climb was running far later than anticipated because of problems with: 1. slow climbing: Though we were on top at 2:30 we did have plenty of time to	Know the route, even if you think you know the route. Be as careful on the descent as you do on the climb. Spend the time to figure out the route when conditions deteriorate, don't rush to beat the light. Make sure all in the party have a voice and are expected to speak up if something doesn't look or seem right. Ask if everyone is comfortable with the decisions made.	Route Finding Gear Judgement

get back to the gear.

- 2. Then on the rappels, we had a very slow first rappelling (MegaJul issues):
- 3. After the first rappel, the rope got stuck and I had to climb the gully and free the rope, then downclimb the gully.
- 4. We had trouble setting up an extension (clipping both sides of the knot causing binding the carabiner, and the MegaJul again).

The above issues did not cause the fall below, they were only ancillary issues that had an impact on the outcome of the trip.

By this time, it was close to the end of dusk and we were losing light, we had finished the final rappel and started down climbing the gulley. The two other climbers had their headlamps attached while I pulled the rope. They had both tools out. I didn't have my headlamp out and mentioned to the climber coiling the rope that we needed to hurry and that I didn't want to take the time to get mine. I only had one tool out because I was comfortable with the deeper snow conditions of that part of the climb (similar to a T5 scramble). Thinking back to my mental note above, I wanted to make sure we cut across just below the rock line (like you see in most of the pictures). What I didn't know was the rock line I was referencing was much higher on this side of the wall than were the climb started, the snow conditions were far different than in most pictures and the low light conditions didn't flag me of this.

I was trying to move fast and at the same time not wanting to push the others past their comfort climbing speed. As I moved across the hill the snow became far more solid and much steeper than it should have if we were on the right route. The clouds cleared just enough for me to catch a glimpse of the trees at the top of the saddle, and I was way, way too high and knew I needed to climb further down because there was a rock band in my way and if I continued, I would have been about three quarters up the variation of the first pitch. The snow was so firm now that I was front pointing, but the snow would not allow for a good tool placement (just pull through). I decided to go back to better conditions and when I hit a section of what I felt was decent snow I looked down and it appeared that I could downclimb for where I was at back to the real route. I climbed down about twenty-five feet and went to kick in my left foot and when it hit the snow sheet I was on, it broke away and I began to fall.

At first, I thought I had started an avalanche. My first instinct was to bring my tool up for arrest, but there wasn't any snow around me and then my crampons caught in the ice below and sent me flipping end over end. My tool was hurled from my grasp on the third or fourth impact. I continued the rinse cycle, landing on my face, back, head and legs for what I felt like never ending. I finally came to rest on my back; still in steep snow (about 100 feet below the correct route). The two other climbers called down to see if I was "ok." I said: "I don't know yet. After slowly moving all my body parts everything seemed to be intact and functioning. Though I felt like someone had hit me in the face with a frying pan a few times and my ankles felt like they had been run over by a truck, I was able to stand and was coherent. I yelled up for them to go back the way they came and

				completely downclimb the gully. It took what seemed like twenty to thirty minutes for them to reach me. I fell what looks to be about 500 feet.		
				The other two collected the snowshoes and they helped me slowly hike out. Left the trailhead at 7:00 am, Return to the cars and 11:00 pm		
Feb- Backcountry No. 20 Skiing	Incid	se ribe in	OTHER	PARTICIPANT 1Instruction at the Uphill Ski Travel class was great; it was a wonderful experience spending time at Meany Lodge; and I had one of my best days learning in a Mountaineer's course. However, I also was pulled through the safety gate onto the ramp at the top of the rope tow when my rope tow camming device failed to release in a timely manner.	PARTICIPANT 1: I would have reevaluated the risk of riding the rope tow at speed 3 and decided to not go all the way to the top. PARTICIPANT 2: It seems like the safety system didn't work as well as it should have. I will leave it up to the Meany folks to	Outdoor Center
				The incident occurred in the afternoon. My class had received instruction on the use of the camming device, how to engage in the getting on the rope tow, and how to release the camming device. We had a demonstration of these techniques and had the opportunity to practice these steps several times on the Turtle Tow at slow speed. After that we used the main rope tow several times getting off at ramps at a third of the way up the rope tow path, and two thirds of the way up the rope tow path. On one of the times that I attempted to disconnect from the rope tow with my camming device at the two thirds point I had trouble getting my camming device to release. I was pulled up several feet after I had released the camming device and had to manipulate the handle to get it to release. Part of what appeared to contribute to this failure to release was that the rope was pulled high up off the ground at the point I tried to release.	puzzle this out, as I am sure they put a lot of thought into their safety systems and the tows, and I know very little about their systems. Off the top of my head, tow safer in second gear than third? Does it make a difference if you are riding the tow on the left or the right side? Should a better platform have been created at the top off the lift that day? Do the camming devices not release as well if the rope is high up? This rider still is not sure where I was meant to end up after getting off the lift.	
				These rides on the main rope tow happened while the speed setting was on 2 (my understanding is that the rope tow has three speed settings between one and three.) I did one successful ride on the main rope tow to the top while the speed setting was on 2, and the instructor waited at the top and told me when to release my camming device. The second time I rode the main rope tow to the top the speed was increased to 3. On this ride, I started on the rope tow as planned, was able to connect my camming device as I had on previous rides, and rode uneventfully to the top. When I reached the top, I released my grip on the camming device, but it failed to release from the rope. I was pulled through the safety shutdown device and most of the way up the ramp past the safety device. It all happened very quickly. I dropped my poles, my backcountry ski binding released, and my skis came off, and I came to rest most of the way up the ramp. The person in the upper control tower for the two came out to help me down the ramp, as well as a snowboarder who was at the top. It took a couple of minutes for me to collect myself, and then we continued with the class for the day.		
				During the incident I landed on something hard on my backside. I sustained substantial bruising, swelling, and soreness on the inside of my right buttocks. There were two primary things that I believe contributed to why the incident happened. First, the rope two on speed 3 was substantially faster than on speed 2. At speed three, there is little margin for error in the timing of the release of the camming device at the top of the lift. In addition, even with successfully releasing the camming device at speed three, the momentum of the		

						lift carries riders just to the side of the wooden ramp and leaves little margin for error. Second, the platform to release the camming device is not very large and is immediately before the emergency stop system. If the camming device does not release immediately upon letting go of it, the rider has very little time to react before being carried through the safety device and up the ramp. PARTICIPANT 2: I was a witness to this incident. The person who was injured will also write a report from their perspective. We were taking a class at Meany Lodge (Uphill Travel on Skis) and using the long rope tow. Twice, this person had the camming device does not release. The first time, the rope tow was in second gear, and we were getting off a 1/3 of the way up and the rope was running high as there were only 3 of us on the tow at that time. The second time, we were riding the tow up to the top and the speed was in third gear. I was the first to get off the lift at the top. The person came up, let go of camming device before the safety release, but was then pulled up the platform on backside 3/4 of the way up the platform. A snowboarder resting at the top and the top lift operator came out and helped P clamber down. P reported that P had hurt buttocks but was otherwise okay. I was relieved to hear this, as it was very scary to watch, and it looked as though the injury could have been worse.		
Feb- 20	Youth Programs - camp, Mac, etc.	Minor	Slip, Fall, Capsize	fall while skiing	Snow - non- technical	Participant was towing into Meany Lodge on skis behind a snowmobile. Snowmobile had driver and two passengers, two youth in sled with gear, and 8 skiers towing. Rope for towing only has 6 loops, but skiers doubled up on two loops to get into lodge as a complete group. Participant was doubled up on a loop and on the far right. Just over two miles in, the snowmobile path gets steeper and thinner as it climbs to the lodge. Participant, on skiers right, caught the toe of ski in the uphill snowbank and fell, releasing tow rope. All skiers and snowmobile stopno collisions among other skiers or between participant and skier behind P. In falling, participant caught inside edge of left ski in the snow and tweaked left knee. Initially, struggled to put weight on leg, but was able to walk with support to the snowmobile where she was put in the sled and rode the remainder of the way to the lodge. Participant reported dull, persistent pain along inner left knee; 2 out of 10 on the pain scale, but higher (3-4) when putting full weight on it. P iced on and off Saturday: Sunday and did not participant in skiing or snowshoeing activities while at the lodge.	Doubling up skiers may be manageable in wider, flatter sections of trail but perhaps not on the final mile into the lodge. Keeping the snowmobile centered in path and giving skiers a wider margin of error when possibleespecially when the ski-able path is thin will give skiers a better chance to control their ride in and out of the lodge.	Outdoor Center
Jun- 20	Climbing	Minor	Hit, Struck, Cut	hit/cut - natural object	Rock - talus, boulders, scree	We were a two-party rope team of three people each for a climb of Little Tahoma. We were preparing for the final summit push after reaching the rocky notch at about 10,800 feet. This is just off the snowfield, and it was at about 8:25AM. The first rope team that arrived at the notch / talus area had just unroped while the second team arrived, still roped up but on the talus just below them. As a group, we were discussing options for the final scramble section. At this point, the first rope team yelled for rockfall we all looked up to see several rocks including microwave sized ones coming directly at us. We all looked to see which direction to dodge. The first team successfully dodged the rock and remained upright. The second rope team tried to dodge, and they all fell to the ground, with one climber falling hard on shoulder directly on a rock with all weight. The other two climbers from the second team also fell but did not have	Two main areas that would have helped in this case: the route is known for rockfall. Given the multiple days warm weather, we could have changed our objective to something with less rockfall potential; we should have immediately unroped and taken crampons off at the talus area. Not doing this made it much more difficult to react to the rock fall.	Rockfall

						Language de la factuario		
						any noticeable injuries.		
						We immediately began to assess the fallen climber for injuries. C complained of a shoulder issue and upon checking found that C had contusions and minor abrasions on right shoulder. We checked for obvious head injuries and palpated to check for other issues and did not find any other injuries. We moved the injured climber further away as much as we could from rockfall zone but were still in rock fall area. We discussed activating our PLB but determined that we would need to evacuate the area no matter the response so decided to wait on PLB call as we continued to assess and determine next steps. As the climber recovered from the initial shock of the injury, we setup an anchor to attach the climber. Injured climber was mobile but could not use right shoulder effectively so we decided to lower C back to the snowfield and attach C to a picket. We lowered C several more rope lengths to intermittent picket anchors while we were on the steeper section of the route, about 600 feet total. At about 10,200 elevations, C was able to navigate with ice axe using good shoulder and we switched to a short rope with tension from another climber to help with balance or any falls and descended the route.		
						At camp, we distributed some of the weight of C pack but C was otherwise able to walk out unassisted.		
Jul- 20	Climbing	Near Miss	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	Incident occurred during descent from climb of North Face of Kangaroo Temple. There was more snow cover than anticipated by the trip leader. Steep sections were navigated slowly but safely during ascent. During descent, all the participants were tired as this was first climb of the year for many. Coming down from Kangaroo Pass towards SR20, participant lost footing on a snow section, slipped and fell some distance (10~20 feet), unable to arrest with ice axe. P was able to stop next to the rocks. P declined medical examination and was able to hike out with everyone.	As trip leader, I should have had the team members bring crampons or micro spikes. I was asked at the start and offered my opinion that it won't be necessary. They may have prevented the slip and fall. Fortunately, I had loaned my ice ax to P for descent, which hopefully helped in other instances on descent. The participants, including the person who slipped, were not in best physical shape, given the abbreviated start to the season. Basic graduates do not have the same physical readiness requirement as current students. Leader kept the pace measured for the approach and descent, but 13-hour day did take its toll towards the end when this occurred.	Ice Axe Conditioning
Oct- 20	Scrambling	Near Miss	Hit, Struck, Cut	rock fall, rock movement	rock - non- technical, scramble skills needed	LEADER: as we were descending the rock gully from the summit, a party of three was ascending and kicked two rocks down. They flew between two participants, within about a foot. We also had one participant slip and fall on an eroded slope but was uninjured. PARTICIPANT: the group ascending caused some rocks to fall within a couple of feet of us. No one was hit and we moved away from the danger area until it was safe to descend.	LEADER: in hindsight, I would have asked the party ascending to wait until we were out of the gully. We had not experienced any rock fall on our ascent, so I just asked them to be very cautious. Also in hindsight, the mountain had just experienced five or six inches of snow and rapid melt off the week before, which could have been the reason for both the loose rocks and eroded soil on the trail below. PARTICIPANT: we could have asked the other group to wait	Rockfall
Oct- 20	Scrambling	Minor	Hit, Struck, Cut	rock fall, rock movement	rock - non- technical, scramble	LEADER: while scrambling the ridge from Earl to Bean the front person (who has done this route before) went too high on the ridge where you normally drop down on the south side for a short section. I could see the trail we needed to get on and instructed the participants with me to down climb to the trail about 30'	while we descended to a safe area. LEADER: the rock I touched looked very solid and actually still attached to the face. I was shocked when I felt it start to move. The obvious lesson learned is to always check your holds to make sure they are solid. However realistically	Route Finding Rockfall

					skills needed	below us (easy class 2). While downclimbing, I needed to traverse on a small ledge past a rock bulge. As I put my hands on the large face to go around (I was facing the rock), the entire bulge broke off sending me backwards with an estimated 3'x5'x2' block of rock coming down on top of me. Somehow, I managed to fall a couple feet to climbers right and down about 10' and land on the only ledge on that section of the face. The rock continued down the ledgey face 500-700' to the trees below. The three other party members who were there and saw the event were able to reach me in less than 2 minutes.	scramblers make these sort of moves regularly on trips just an eyeball review to make sure it looked solid, even more so on very easy class 2 terrain without significant exposure below. I would chock this one up to the odds catching up after 30 years of scrambling that eventually a very solid looking face would look solid but be balanced just waiting to fall. Hopefully it will be another 30 years before I find one like this again. (-:	
						Assessment of my injuries was a bruised right hip (I landed on a block of rock sticking up on the ledge), scrapes to my right knee and abrasions to my left hand and arm. Upon getting up It was discovered my left ankle was twisted and sore to walk on. None of the injuries were serious but combined made it unrealistic for me to continue the traverse. We were able to find an easy class 2 descent into Bean basin where I iced my ankle for 30 minutes using snow in a bag and took ibuprofen. After about 1 hr. (we made this a lunch spot) the group descended back to the trail and returned to the cars. Overall, my ankle was not significantly sore on the descent. I was able to drive myself home without any issues. The following day, other than the scraped hand, nothing was sore, and I did a 4-mile hike on a local trail near my house.	CO-LEADER: on any trip involving travel on rock there are potential hazards, a fact that as a climb and scramble leader I've accepted for close to 30 years.	
						CO-LEADER: a large rock was dislodged by a party member causing a slip. P was not struck by this or several other of the rocks that were dislodged. P mobility was not impaired and did not require medical attention.		
Dec- 20	Sea Kayaking	Safety Concern	OTHER - Please describe in Incident Narrative.	water hazard - wake, waves, conditions	Water - stream, creek, river	Very high tides (12.32) at 9:45 am allowed us to paddle a short distance up the main stem of the Dosewallips River. Once we were approximately 100 yards upstream, we stopped on a gravel bar for a quick lunch. As we started back downstream, we observed that as the tide ebbed the velocity of the Dosewallips River quickly increased exposing drops, waterfalls, and abrupt turns. This made it challenging to paddle back downstream. Two paddlers capsized. Paddlers reentered their kayaks. One paddler required assistance to re-enter the kayak. There were no injuries. One cellular telephone that was not secured to the kayak deck was lost.	Future kayak groups should be aware that while it is a challenging and enjoyable experience to paddle up the Dosewallips River at an extremely high tide, they should not linger upstream as the tidal waters recede. The main stem of the Dosewallips River is safest to explore at high tide, exit quickly, and then land at the calm channel to the south edge of the park near the picnic tables restrooms for a lunch stop. The positive outcome is the result of the group having had sea kayaking training, experience, correct immersion clothing for the conditions and outstanding teamwork.	rement
Jan- 21	Nordic Skiing	Major	Slip, Fall, Capsize	fall while skiing	Snow - non- technical	LEADER Just 2 - 5 minutes into our trip on the Erling Stordahl Trails and 150 yards out from the Cabin Creek Snopark on the groomed trail that connects the Snopark with the Erling Stordahl Trail, Skier X fell while skiing down a short gentle hill. My Co-Leader Y was leading our group of 7 and I was sweeping. I did not see X fall but came up to X right after the fall. X was lying on right side and said right shoulder was very painful but did not think X had other injuries. There was no sign of any head impact. I released X's ski binding and took X's poles. I stuck skis into the trail above in an X to warn any other skier. No one else was involved in or was the cause of the accident I got X's permission to call 911. After giving the details over the phone I was told and shared with X that a team of paramedics would be dispatched. By that time several of the other members of the group had returned and I asked one to go back to the trailhead to notify the first responders where to find us. Co-leader Y then arrived and offered to manipulate X's shoulder as X	LEADER Falls happen fairly regularly in cross-country skiing, even when participants know what is involved in each particular trip regarding length, difficulty etc. This trip was labeled as including hill work: up and down and the snow and grooming conditions on the section where the incident took place were good. It's unfortunate that the cross-country trail that leads from the snopark to Erling Stordahl has a short hill right at the start. In future I will suggest that anyone in the group wishing to warm up on a flat trail first can walk down this short downhill section and practice hills later in the trip. CO-LEADER As trip co-leader, I could have encouraged X to not use ski	

claimed X had a lot of experience of this. X accepted and was by this time able to stand up though clearly in considerable pain. The manipulation did not appear to cure the pain X was experiencing. I have asked Co-leader Y to provide me with details of the treatment provided to X to add to this incident report when Y returns home from Meany Lodge tomorrow night.

With X's agreement I then walked slowly back down to the start of the trail with X and one other from the group who wanted to visit the bathroom. I carried X's skis, poles and backpack and walked on X left side ready to provide support if needed.

I had agreed with Co-leader Y that Y would ski out with the rest of the group once this one other member of the group returned from the restrooms. I said I would let Co-leader Y know the situation once this was clear. Either I would be able to rejoin the group later or just in case I was needed further to assist X, I was confident that Co-leader Y knew the trails and would be able to lead the rest of the trip without me, even though Y has not yet been approved as a formal xc ski trip leader.

There was a Parks Ranger and two ambulances and a fire vehicle ready at the roadside. I waited outside the ambulance that X was examined in. I learned from one of the paramedics soon after that it had been agreed that they would take X to Snoqualmie Valley Hospital to be treated and probably have an X-ray. Also, that X's sister would meet X there to take X home. Two of the paramedics took X's skis and poles to X's car. X must have asked them to do this as they had X car keys. I went with them.

I gave a report on the X's accident and injury to the Park Ranger on duty at Crystal Springs at the time: Ranger Z, who was also in attendance. Z took my name and phone number. I explained where X fall had taken place and that X was on a Mountaineers xc ski trip I was leading. The ambulance left Crystal Springs, and I was then able to ski out to rejoin the rest of my group. Thanks to the radios that Co-leader Y had been able to borrow from Meany Lodge I found them easily. The trip continued with our remaining group of 6 and there were no further incidents. When I returned home, I had planned to call X but I read an email that X had sent:

Hi! Thank you and the group today for helping me. I'm back home and they were able to pop my shoulder back in. I appreciate you helping me with my skis and bag!

I hope you guys had a nice rest of your day! Best,

١,

I responded to thank X and I offered to assist tomorrow if this might be helpful to get X car home to Seattle from Crystal Springs. X then called me and gave permission to share email with the rest of the group who were naturally concerned to know how X was.

LEADER

This is additional information to the report I filed on Jan 2 obtained from my Co-Leader "Y": Co-leader Y received permission from skier X to attempt to reduce the suspected shoulder dislocation by gently moving the arm through part of its pole straps and to walk the first little hill where X fell and get used to skis on the flat.

						normal range of motion. Unfortunately, co-leader Y wasn't able to reduce the dislocation. Co-leader Y has had decades of personal experience with shoulder dislocations, having successfully reduced her own shoulder dislocations many times in the field. CO-LEADER A skier fell and unfortunately dislocated shoulder. The trip leader contacted 911 and skier was transported to the hospital. Leader stayed with Skier until the paramedics arrived and assisted with gear.		
Jan- 21	Winter Scramble	Minor	Personal issues (conditioning , conduct, lack of skill)	lack of skill, preparatio n, conditionin g, fatigue	Snow - steep, ice axe, poles recomme nded	While ascending the lower slopes of Sasse peak participant (P) expressed concern with the pace several times, which was actually quite slow due to several other participants not going very fast. After about 2,000' of gain, P let me know that P could not keep up "with you climber types" and asked to stay and wait for our return. As the conditions were warm and sunny, I agreed, and we gave P an extra down parka for added comfort. This was about noon and P was left at 4400'. After gaining Sasse ridge, at 5,000, another participant (P2) let me know P2 could not continue as an old ACL injury that P2 had surgery on a year ago was acting up. P2 has been on several of my winter trips this year so far and is not in very good shape and quite slow. However, P2 never expressed concerns about an ACL. After questioning to make sure P2 was otherwise ok and had plenty of cloths to also stay warm, we left P2 there to wait for the remaining party to summit Sasse. This was about 12:30pm. The remaining 5 of us did summit approximately about 1pm and, after a short lunch returned along our route to pick up P2 and 20 minutes later P. Both were very slow on the descent but were able to make it back without additional issues other than close monitoring by me, and in the case of P, considerable coaching about how to descend in snowshoes. We arrived back at the cars at about 4:10 PM.	P noted that P should not go on my trips in the future as P was not in condition for them. Hopefully this means P also realizes P needs to go on easy trips with other leaders until P is able to do more physical snowshoes and winter scrambles. Overall, this was handled as best as possible. Conditions were ideal for allowing participants to wait for the rest of the party to ascend and return and all were well equipped for a winter scramble overall. Had conditions been less ideal I would have had to turn the party back when P was not able to continue. As P2 has signed up for several of my trips in the past this winter and most of my remaining trips are harder than Sasse, I will need to have a conditioning discussion with P2 if P2 requests to sign up for the more difficult trips still planned. This is unfortunate as most leaders seem to not be leading winter trips this year due to the pandemic so there is a very limited selection of WS trips available.	Conditioning
Jan- 21	Cross- country Skiing	Significant	Slip, Fall, Capsize	injury /illness - caused by movement, self- inflicted	Snow - non- technical	Beginner Student (S) fell during learning how-to Cross-Country Ski class field trip. S completed the day without indicating S was hurt. S emailed me Saturday evening to let me know that S wrist was sore from falling and cancelled next day field trip. S emailed to cancel class because S fractured wrist when S fell.	I've run through different scenarios, and this would be a challenge because we all fall when we XC Ski. Falling is unavoidable when people are learning to XC Ski. Best scenario is to work more on balancing on skis with students who are new cross-country skiing. We do go over falling and how to get up safely with students, especially students who are new to XC skiing. We'll add when you fall do a "self-assessment" and if something doesn't feel right or hurts let your instructor know. Instructors can determine if first aid is needed, if the student should go on with the class, etc Also, stress to instructors watch for students who are struggling with balancing on skis.	
Jan- 21	Winter Scramble	Major	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	After descending from the summit and reaching the top of the worm flows route, a glissade was attempted by the trip leader (TL). The conditions were much too icy, the TL could not gain purchase with their ice axe, and eventually lost it altogether. TL proceeded to slide, uncontrolled for approximately half a mile before going over the lip of a steep icy gully and landing at the bottom. A phone call was made to 911 from this position before their phone died. They apparently sustained no injuries and were able to ascend out of the gulley to a more visible position while waiting for help. There was no contact with other members of the party for some time, until one	The leader identified two major problems while reflecting on the scenario. First, a winter glissade on this mountain should never have been attempted given that conditions were icier than they appeared. Second, the individuals who witnessed the fall did not tell the rest of the party what was going on in order to not alarm them. The full resources of the group and true consensus therefore were not used in managing the emergency. 3-4 people kept what they witnessed to themselves and decided to tell the others that the leader was	Judgement Ice Axe

						individual came back to look for the person who fell. With the gps track on the dead cell phone, and the other individual having only a map with no track on their phone, they ended up a few hundred yards off route. While descending this way, search and rescue lights were visible and SAR approached the two team members. After some navigation, search and rescue helped the two get back onto the route where they were joined with more personnel and walked out safely. The rest of the team had made it back to the parking lot by this time and had touched base with search and rescue on the trail and with their in reach devices.	"up ahead" and that they were going to the parking lot. The leader would have been better off to choose a co-leader that was at or above their experience level in leading mountaineers trips and not just private climbs. Positive things: the person who fell was wearing a helmet and had a stove to make hot water. They also had enough cell service to make a 911 call from the gully, which is more luck than anything. One individual, upon learning what had actually happened much later decided to turn back and find the leader which helped with morale and safety. The Volcano Mountain Rescue volunteers and Skamania County Sheriff Department were exceptional and kind in their response to this incident. Also, the fact that the weather was nearly perfect unseasonably warm, clear, and relatively windless, made everything less painful.	
Jan- 21	Snowshoeing	Safety Concern	OTHER - Please describe in Incident Narrative.	party split	Snow - steep, ice axe, poles recomme nded	My only safety concern during the trip is that I was left behind for a long time while going down on a steep terrain during our way back on the snowshoeing trip. I fell 3 times with no one around and no instructors or anyone. They were so far ahead that even if I wanted to call for them, they won't hear me well. For me that was a big concern, that if anything bad happened from the fall like twisting my ankle or anything else no one was around to notice and help and since we're not on a paved road or trail it's even harder to get anyone to see and help. I also felt lost couple of times searching for them and where they went. Please ask the instructors to stay with the students the whole time during a trip especially if it's for beginners where they're still learning	Please ask the instructors to stay with the students the whole time during the trip especially if they're beginners and they're still learning. It should be the culture that no one should be left behind in a group and it should be a more supportive culture for students to learn because for me I would avoid going on these trips again if there's the same risk	Party Separation
Jan- 21	Winter Scramble	Minor	Illness or Personal issues (conditioning , lack of skill)	lack of skill, preparatio n, conditionin g, fatigue	Snow - non- technical	While leading a Winter Scramble of Foss the leader (me) became extremely tired and started getting minor cramping in my right leg approximately 2/3 of the way to the summit. I determined I would not be able to make the summit and I had to turn myself back. A participant scramble leader (P) and on the trip and he agreed to take over as the leader. I was able to descend to Reflection Lakes and waited for them as planned. The rest of the group was able to summit and return safely. It is likely a minor cold I had earlier in the week (not covid) and being up to late Friday night (I got an unexpected work promotion Friday afternoon) combined to result in a lack of energy and the need to turn myself back.	Give minor colds better respect and request to NOT get promoted on Friday afternoons before an early Saturday trip wake up (ok, really just remember to get enough sleep regardless of what happened the day before a trip).	Conditioning
Feb- 21	Day Hiking	Minor	Slip, Fall, Capsize	injury /illness - caused by movement, self- inflicted	Trail	This was roughly 1/4 mile into our hike. I would have normally not mentioned this at all, but after my training last year on "near misses" I remembered I should list this no major injury resulted (only a bruise on my bum!). Our group needed to stop and wait for someone early into our hike. We moved off to the side of the trail, and as I was moving out of the way, I stepped off into an area I wasn't aware there was an abrupt edge and dropped off about a foot or so. I slipped and landed on the seat of my pants. Only an "ouch" and a little red faced but reminded me to be aware of my surroundings at all times! It's easy to be distracted by group dynamics.	I need to watch where I'm stepping. It's easy to get complacent.	Trail nav
Mar- 21	Snowshoeing	Minor	Slip, Fall, Capsize	injury /illness - caused by movement,	Snow - non- technical	During Ice Axe arrest practice, a student strained their shoulder. The student sat out the remainder of the practice and was checked to make sure they were warm. The student could rotate the shoulder with some pain and preferred to carry their own backpack. After practice finished and the pain remained, the student self-administered Ibuprofen provided by an instructor. The arrest causing		Ice Axe

				self- inflicted		the injury was monitored and did not appear dangerous. The student could not identify exactly when the pull occurred. They reported having a prior history of shoulder difficulties, without being specific. The practice was on a packed snow chute in wet unconsolidated snow; that made it difficult to gain speed and tended to stop students before getting into arrest position.		
Mar- 21	Climbing	Near Miss	Hit, Struck, Cut	hit/cut - natural object	rock - technical, rope & protection needed	I was top roping while practicing placing protection. I was climbing belayed by another student and supervised by an instructor. Since the goal of the day was to place as many pieces as possible, I opted to climb a dirty crack leading up to the main climb instead of simply scrambling around to where I believe most people start it. This was discussed and agreed upon with the rest of the team. I had placed two pieces at this point, so I'm guessing I was only 15-20 feet up. I grabbed a significant jug overhead and pulled hard on it. It completely came off in my hands and was flew down towards my attentive belayer. I had time to yell "rock" 3 times, and it missed belayer. I do not believe B had to move. I came off the wall and scraped myself up a little bit. My belayer and I were both wearing helmets, and although I was being belayed with an atc, my belayer caught me just fine. Once I had confirmed that my belayer was ok, I finished the climb. I would describe the piece that came off as watermelon sized, although I did not try to locate it after I was done climbing. I did inspect the area where the jug used to be and saw that there was a significant amount of dirt underneath where it had been. I don't believe it was simply sitting on the surface, just poorly connected to the main rock.	We did not look at the route in the guidebook/mountain project ahead of time, which would have encouraged us to scramble up the side, however I don't believe that would have changed our decision. However, given that this was not a frequently climbed section, we could have identified that there was increased chance of rockfall and put the belayer even further to the side and I could have climbed more gingerly. I don't believe that I could have identified the piece as loose by testing it more before pulling on it. I believe it held for the first half of my movement, although since it was the last move to a ledge, I probably could have done the move more statically, and when I went to continue climbing I did so. In terms of positive actions, we took, helmets were on, belayer maintained control of the break line even with rock fall, and I was on top rope so the fall risk was minimal. I didn't mention this to the main leader as I didn't think it was a further significant risk to other members of our group, although I guess it couldn't have hurt.	Rockfall
Mar- 21	Climbing	Near Miss	Hit, Struck, Cut	hit/cut - natural object	rock - technical, rope & protection needed	This was primarily a cragging trip. My role was to put up routes, keep an eye on the safety of the group, and evaluate participants' gear placements. I was on a fixed line. One participant was mock leading the route, and another was belaying. Another party was a few routes climbers' left. I looked over and saw the leader in the second tier of rocks. Leader was shouting with party members trying to route find. A few minutes later, I looked up and saw a rock coming down to us. I shouted "Rock!" once and then saw the rock land about a foot behind the belayer. The rock didn't hit our rope, any protection, or any party member. I spoke with the trip leader afterward to let them know that I was submitting this report. We briefly spoke about this and remarked how we had moved our group to the current location to get away from crowds.	This incident shows the importance of (1) wearing a helmet all the time at a crag, and (2) keeping an appreciative eye on neighboring parties.	Rockfall
Apr- 21	Scrambling	Significant	Slip, Fall, Capsize	injury /illness - caused by movement, self- inflicted	Snow - steep, ice axe, poles recomme nded	On 4/3/21, Olympia Alpine Scrambling was conducting Snow 1 Field Trip at Paradise. There were five groups of about 6 students and 2 instructors per group. Four of five groups were in proximity to each other. All five groups were working on self-arrest practice on a hill up from Paradise. In one of the five groups, a student (S) was practicing self-arrest under the guidance of two instructors and hurt leg. S was able to walk out slowly on S own power back to the visitor center with S carpool and myself. No assistance was needed from a ranger or search and rescue. The two individuals left to return to town in their personal vehicle. The student informed me on 4/14/21, that S was diagnosed with a fractured tibia. Thus, an injury did occur on the trip and is documented in this incident report.	The five groups were able to communicate by walkie talkie and there were no concerns with how this incident was handled. If the injury had been more serious, we would have summoned help from search and rescue or the park rangers. The weather was sunny and mild, so the snow was softening up, particularly on the south and west aspects of the mountain. We could give some considerations to snow conditions on particularly sunny and warm days to ensure that our self-arrest practice conditions are as safe as possible.	
Apr- 21	Day Hiking	Minor	Slip, Fall, Capsize	lack of skill, preparatio n,	Trail	LEADER: halfway on the way back to the TH, the patient (P) started feeling nauseous and a bit lightheaded. P had been drinking water with electrolytes and eating snacks, and realized it was because of the sun. P decided P wanted to	LEADER: in hindsight, leader (L) should've persuaded the patient (P) to take a break until P felt better to continue hiking, as well as taking L's other pole for balance (prior to the	Conditioning

				conditionin g, fatigue		proceed hiking to get to the shade as soon as possible, as well as get back to the TH. While hiking on the shade P slipped, twisting ankle and scratching forearm. We stopped to clean and disinfect scratch as best as possible, putting a gauze over it. P felt P could walk back to the TH with the aid of trekking poles and slowing down the pace. Since one of the patient's trekking poles had broken on the hike, leader (L) lent one pole to the patient. Leader transferred all of the patient's backpack weight to L's backpack, except water and a couple of snacks. We returned to the TH safely. In the evening the patient went to get ankle checked; it had suffered a sprain and R.I.C.E. plus ibuprofen was recommended for healing and pain management. CO-LEADER: the patient reported feeling nauseous and asserted that it was due to sun exposure. The patient had been drinking plenty of water with electrolytes and snacking. The patient misplaced a step, rolled ankle, fell and lacerated arm. The injury was cleaned, disinfected and patched on site. The leader took most of the patient's pack contents (just left water inside) and loaned the patient an extra pole (one had broken on the way up).	incident); the patient was hiking with one pole only as the other one had broken on the way up. After the injury, the patient realized that P's shoelaces were loose but hadn't realized it because P had gaiters on. Leader will remind participants in future hikes to re-tighten shoelaces before descent. Good actions included lending a pole to the patient after the injury, as well as transferring all of the weight from the patient's backpack to leader's backpack, except for water and some snacks. A full first aid kit was being carried by leader too, including hand sanitizer which was used to clean the wound. The patient reported feeling support from the group, and not feeling rushed to hike faster than P felt comfortable after the injury. CO LEADER: shoelaces had become untied. Patient didn't notice as P was wearing gaiters. Unloading weight from the patient did help a lot. The patient decided not to attempt to take a break in order to get out of the sun as fast as possible. The topic perhaps could've been brought up to the group. Perhaps the group would've decided different as a whole. Post-incident the patient went to get medical evaluation and no fractures were found. Only massive swelling.	
Apr- 21	Day Hiking	Significant	Slip, Fall, Capsize	injury /illness - caused by movement, self- inflicted	Trail	LEADER: Halfway on the way back to the TH, the patient (P) started feeling nauseous and a bit lightheaded. P had been drinking water with electrolytes and eating snacks, and realized it was because of the sun. P decided P wanted to proceed hiking to get to the shade as soon as possible, as well as get back to the TH. While hiking on the shade P slipped, twisting ankle and scratching forearm. We stopped to clean and disinfect scratch as best as possible, putting a gauze over it. P felt P could walk back to the TH with the aid of trekking poles and slowing down the pace. Since one of the patient's trekking poles had broken on the hike, leader (L) lent one pole to the patient. Leader transferred all of the patient's backpack weight to L's backpack, except water and a couple of snacks. We returned to the TH safely. In the evening the patient went to get ankle checked; P suffered a sprain and R.I.C.E. plus ibuprofen was recommended for healing and pain management. CO-LEADER The patient reported feeling nauseous and asserted that it was due to sun exposure. The patient had been drinking plenty of water with electrolytes and snacking. The patient misplaced a step, rolled ankle, fell and lacerated arm. The injury was cleaned, disinfected and patched on site. The leader took most of the patient's pack contents (just left water inside) and loaned the patient an extra pole (one had broken on the way up)	LEADER: In hindsight, leader (L) should've persuaded the patient (P) to take a break until P felt better to continue hiking, as well as taking L's other pole for balance (prior to the incident); the patient was hiking with one pole only as the other one had broken on the way up. After the injury, the patient realized that P's shoelaces were loose but hadn't realized it because P had gaiters on. Leader will remind participants in future hikes to re-tighten shoelaces before descent. Good actions included lending a pole to the patient after the injury, as well as transferring all of the weight from the patient's backpack to leader's backpack, except for water and some snacks. A full first aid kit was being carried by leader too, including hand sanitizer which was used to clean the wound. The patient reported feeling support from the group, and not feeling rushed to hike faster than P felt comfortable after the injury. CO LEADER: Shoelaces had become untied. Patient didn't notice as P was wearing gaiters. Unloading weight from the patient did help a lot. The patient decided not to attempt to take a break in order to get out of the sun as fast as possible. The topic perhaps could've been brought up to the group. Perhaps the group would've decided different as a whole. Post-incident	Trail nav, Conditioning, Equipment

							the patient went to get medical evaluation and no fractures were found. Only massive swelling.	
Apr- 21	Scrambling	Minor	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - non- technical	When on the third glissade down Mount Ellinor, a participant (P) ended up out of control and took a tumble in the chute. We took a moment to ensure P was okay and discussed the root of issue of staying in control during glissading. P plunge stepped the next two glissades. P had a sore left knee but was able to join the group on the way out.	Stressed to the individual and the group of all students the importance of technique and the ability to stay in control when glissading. We had analyzed all students on the first small glissade off the summit, but the speed of the following chutes caught them off guard. An eager student who has shown plenty of interest but is learning to become comfortable on snow.	Ice Axe
May- 21	Canyoning	Near Miss	Logistics, equipment issues, party issues	equipment issues	gym, artificial climbing walls, sports area	We were practicing rigging and managing guided rappels, using temporary bolts on the back side of one of the boulders in the South Plaza. When we cleaned the bolts at the end of the day, one of the quick links was fully open. Analysis: I was the one who installed the temporary bolts, and I inspected them carefully. I also ran webbing through them and inspected the whole system. The quick links live on the temporary bolts, closed. It's hard for me to imagine with all of that I would have missed a fully open quick link. The rigging of this system is complex, and I was focused on oversight of student rigging to ensure it was safe. In my focus on the complexity of the system, I neglected to reiterate that the first step to rigging the bottom anchor is to inspect the anchor. We only had 2 students rig and use the guided rappel, but there's a lot of vibration that happens, and I think the vibrations opened the quick link. Neither of the students checked the anchors, nor did I, after rigging them. The anchors were redundant (two bolts), and the other quick link remained closed, and the webbing did not fall out of the open quick link. Because the bolts are on the back side of the boulder and the webbing wraps over the boulder, they are out of sight for the rigger.	Complex systems can distract from the basics. Check anchors with each use, especially if they are out of easy viewing. Get a second set of eyes on your rigging whenever possible. This experience provided a good lesson for all students and instructors, and we debriefed it quite extensively. The good news is, this group will now always remember to be concerned about the anchors, and as instructors, we will certainly emphasize it every time.	Program Center Gear
May- 21	Scrambling	Safety Concern	Illness or Personal issues (conditioning , lack of skill)	lack of skill, preparatio n, conditionin g, fatigue	trail	A scramble student (S), showed up for the scramble significantly overweight and out of shape. Early in the trip it became increasingly apparent S was not in adequate conditioning for the trip and resulted in significant amount of time the party had to wait for S for the entire trip. After we reached the saddle before the final summit ridge scramble and started up the ridge, S was unable to continue and was brought back to the saddle to wait for the group to complete the summit. On the approach and the return another participant self-assigned to stay with S to ensure S was ok. I also stayed in the back of the group to keep an eye on S. The student said they had been doing conditioning such as Mailbox, however, given S inability to keep up with the team at even a slow pace I am suspicious on how S actually did on conditioning trips. I talked to the student and let S know conditioning was not up to where it needed to be and, in a different situation, could have resulted in the entire party needing to turn back and not make their summit as a result. I suggested S focus on trips of less than 2k' gain and 10 miles in distance until S achieves better conditioning shape.	Students need to be aware of their conditioning and be realistic about what they are actually in shape for. Hopefully S will not attempt another strenuous scramble this spring.	Conditioning
May- 21	Scrambling	Near Miss	Personal issues (conditioning	ice axe arrest needed / attempted	Snow - steep, ice axe, poles	Started up Guye Peak North Route from Alpental at 8:20 AM with a group consisting mostly of scrambling students in order to complete their required snow scramble. Snow conditions existed from the parking lot and were generally good for microspikes. We also put helmets on early in the trip and began using ice axes	I could have identified the weakness in Student A's skills and turned the group around sooner, though I don't know that this would have prevented this incident. While splitting up the group is discouraged, I think it helped in this instance. I	Ice Axe Snow Travel

F	conduct	rocomina	at around 9.45 (2500ft alouation). The route was fairly straightforward wattl	foor group members would have popieted had we all have
	, conduct,	recomme	at around 8:45 (3500ft elevation). The route was fairly straightforward until	fear group members would have panicked had we all been
	lack of skill)	nded	about 4650ft elevation, where it began to get firmer and steeper. At 11:35am at	together, creating a more chaotic and difficult-to-manage
			an elevation of 4900ft, I made the evaluation that the snow conditions were not	situation. The fact that the climbing graduate stayed at the
			appropriate for our group to continue and turned us around.	cars and waited to hear from me contributed to a positive
				outcome. CoLead was able to escort Student B back safely
			We did a face-in downclimb of the steeper sections, and it was at this time I	while I focused on Student A and then assist with coaching
			noticed that two of my students were very nervous and traveling much, much	Student A down the slope.
			slower than the rest of the group. The rest of the group had performed very well,	
			and I knew the climbing graduate (CG), so I had CG continue ahead with all (8	All participants had helmets and microspikes on for the
			including CG) except the two struggling students, who I will call Student A and B. I	majority of the trip and used their ice axes. That the students
			stayed with them to coach them down at their own pace (Student A was	had just completed their snow scrambling field trip the day
			frequently fretting about holding up the group). I gave CG instructions to message	prior may have had a positive effect for some (since the
			me once their group had reached the parking lot, which they did at 3:15pm.	experience was fresh) but may have had the opposite effect
			The ended them group that received the partiting root, thinless they are acceptant	for Student A (perhaps the material hadn't full sunken
			At approximately 3pm, at an elevation of 3800ft, Student A slipped on a patch of	in). Crampons were not used, as they would provide no
			soft snow. A failed to arrest and slid past several large trees and out of sight.	additional benefit on the soft snow over microspikes but
			Student B and I kept yelling for A to arrest. Once A went out of sight, I told	significantly increase the odds of injury. Attached are the GPS
				tracks. I turned my track off during the downclimb to
			Student B to stay put while I proceeded down the slope to find Student A. I found	,
			student A downslope in the self-arrest position. Judging by my GPS track, I	preserve battery. The complete track was the climbing grad's.
			estimate the slide was approximately 60 vertical feet and about 100 horizontal	
			feet. Student A was conscious with no visible injuries. A said that A lost ice axe	
			and stopped without it, but it came to rest near A so A grabbed it and went into	
			arrest position. I removed Student A's pack and got A seated in a safe,	
			comfortable position off the snow while I went back up to get Student B, who had	
			already been downclimbing toward us. We regrouped and discussed our options	
			in terms of terrain, which would involve face-in downclimbing for about 150	
			vertical feet.	
			I discussed the options with Student A taking into consideration state-of-mind	
			and physical ability. I offered to lower A down the slope on a rope, but A felt	
			uneasy with that option and decided to face-in downclimb. We switched packs	
			because A had brought way too much gear and was heavier than mine. I also took	
			as much as I could from my pack and put into A to further lighten load. Student B	
			began downclimbing, and I followed either next to or directly behind Student A to	
			coach A and kick steps for A. At 5pm I checked my phone and saw that the	
			climbing graduate had texted me earlier to say they had made it down. CG was	
			waiting in the parking lot for my reply, and I communicated the situation. I asked	
			CG to come up to escort Student B back to the cars, and then around 6pm asked if	
			CG could bring some food because Student A was getting exhausted and only	
			about halfway down the slope. At this point, I also took my pack from Student A	
			so that A would have no weight on A back and attempted to lower it down the	
			slope with my scrambling rope, without much success.	
			Stope with my scrambling tope, without much success.	
			The climbing grad successfully asserted Student P (who had successfully	
			The climbing grad successfully escorted Student B (who had successfully	
			downclimbed the slope without issue) to B car and then returned to help me with	
			Student A. I hauled my pack down to the bottom of the slope while the climbing	
			grad helped coach Student A, who had transitioned from a face-in downclimb to a	
			modified sitting glissade. When Student A got to the bottom of the slope and	

						could stand upright, the climbing grad and I changed out A wet gloves, got A into additional layers and helped A get a warm drink from A pack. At this point, A felt comfortable enough to walk out with the aid of poles. I carried the packs to the car and started the engine so Student A could quickly warm up when A reached the parking lot. I left my pack at the car and returned up the trail to finish escorting A down to the cars. Student A rested in car for about 15 minutes, called family and then drove home. We left the Alpental ski area at about 8:20pm. Separately, the climbing grad informed me that one of the other students had slipped downclimbing the same slope, slid about 30 feet and self-arrested. The other student was also uninjured and completed the downclimb with the group at 3:15pm.		
May- 21	Scrambling	Significant	Hit, Struck, Cut	hit/cut - natural object	Snow - steep, ice axe, poles recomme nded	I had been traversing in a moat to find an alternative route to a snow slope under a cornice. The moat ended up not being viable, so I had traversed back and was attempting to transition back onto snow. I sat on a slab about 2 ft by 2 ft and 4 in thick (200+lb) and it moved. I high daggered my ice ax and jumped up on the snow but fell (and got one foot planted on the rock ledge in the moat). The rock slid and pinned my calf behind me. Another participant (P) was with me, as the rest of the group was scouting the route below the cornice. P helped lift the rock to the point where I could get my hand under it, and together we moved it just enough for me to pull my leg out. The rest of the group had done an end run around the cornice, and we joined them at a flat spot at 4500ft. We discovered I had a nasty gash on my calf, first aid was rendered, and we continued to the summit. After the scramble I went to urgent care and got six stitches. I was very lucky; it could have been a whole lot worse.	Lessons learned: the group should have stayed together and scouted out one potential route at a time. We should have had a shovel, just in case someone (in this case me) fell deeper into the moat. Spring conditions in the Olympics, particularly this year, are really sketchy. It may not be advisable to continue if the route options don't look great. The group was experienced and terrific and should all be commended for their Grace Under Pressure and their ability to perform first aid. P's quick thinking and help kept a bad situation from becoming very bad. The urgent care doc was very impressed with all their work.	Rockfall
May- 21	Scrambling	Major	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	At an experience scramble field trip, a group had been traveling for about 3 hours. Group had initially gotten off route at the start and had spent considerable time moving through difficult scrambling terrain to get back on route. All students were well conditioned and continuing to travel well. Group had just crossed the creek above the waterfall at approximately elevation 4400 feet. The students were leading the party. Three students in lead followed by both instructors. Group was traversing a slope of moderate steepness. Students were kicking steps in the snow. Snow was in the sun and quite soft. Student who fell was using an ice axe in uphill hand and a ski pole in lower hand. Injured party (P) stepped into previously kicked step, slipped and then fell on back. As P fell P let go of ice axe. Axe remained upright in the snow with the point driven in. Student began sliding on back. Instructors were shouting direction to have student turn over and get in arrest position. Student hesitated and finally turned over just as P hit a rock at the lip of the cliff. Student had slid approximately 30 feet to the cliff edge where P hit a rock. When P hit the rock, P then flipped over and appeared to fall with his pack leading the fall. Other party members scrambled down the snow field next to the cliff and found the victim in the rocks between the snow and the cliff. Student's helmet was broken. Student was dazed and did not know what had happened. Instructor immediately administered first aid and determined that the injuries were serious,	Contributing Factors in Ranked Order: 1. Inexperience in getting into self-arrest position. Instructors yelled at student (P) at least 3 times to turn over before he made any effort to flip over. P would have stopped on the slope if P had turned over. P did not have significant experience sliding in snow before the class like many skiers do. 2. Using both a pole and an ice axe. Although having an ice axe in your hand does not help when you are on your back sliding down the slope on your pack. Assessment had been made that student was more confident and comfortable with both an axe and pole in P's hands on slopes of modest steepness. 3. Student lack of experience in traveling in snow. More ice axe arrest practice during snow field trip might have helped. Snow field trip had been shortened to one day instead of two days due to pandemic. 4. Following route of other scramblers. It appeared to be the best route, but maybe a better one existed.	Ice Axe

					but not immediately life threatening. Bruises, scrapes, contusions, likely concussion. Instructors had radios, radioed trip leader and reported the situation. Trip leader was descending Guye Peak and was able to reach the fall scene in approximately 20 minutes. Leaders decided that due to nature of injuries (likely concussion and injured leg) that mountain rescue needed to be called. 911 was called and the operator routed the call to King County Search and Rescue. While waiting for rescue the group prepared a platform in the snow about 50 feet away from the point of impact. The platform was located out of rock fall or snow slide hazard. A pathway in the snow was created and the student, assisted by 3 others walked under own power the 50 feet to the platform. The group then built a sunshade shelter and made the injured student as comfortable as possible. Mountain Rescue airlifted student out.		
May- Scrambling 21	Significant	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	LEADER: While descending from Bean Peak, two student pods were practicing self-belay skills while descending on a snow slope. One student (S) lost footing and slid down the remaining slope, hitting elbow on a rock. The pod leader was able to slow the students fall by grabbing S pack minimizing the speed of the fall. That pod leader, another instructor and a student who is a medical professional, assessed the student and deemed it a likely fracture of the elbow. It was determined that the pod leader would evacuate the student and drive S to a hospital or urgent care along the way for further care. The student did visit an urgent care clinic the next day where x-rays showed no signs of a fracture - only deep bruising.	LEADER: Understanding now that there was a layer of ice where lighter boots had a harder time kicking in steps, the pod may have elected to descend through the rocks and find a different slope to practice the down climbing skills.	Ice Axe
Jun- 21	Minor	Hit, Struck, Cut	hit/cut - natural object	rock - nontechni cal	I pulled a rock I was using as a hand hold off and sent it down-slope while scrambling up Beta Peak on the return from Mount Cruiser. I did call out and alerted a fellow climber (C), who moved enough that it hit C in the shin and not in the head or other vital area. Result was a bruise to the shin, but certainly could have been worse. Party was wearing helmets and had just removed crampons coming off snow and transitioning to a bit of scrambling before another steep snow section. We had unroped for this section. This occurred around 1700 after a 0600 start and a full day of scrambling, steep snow travel, a short rock climb and just off a steep snow section. Fatigue was an issue in that while I checked the hold before weighting it, this was not adequate in that the hold failed. The Party that was struck expected bruising but did not require first aid and was able to hike out 12 miles from this point.	1. We were somewhat tired and aware we were and knew we still needed to focus, especially after a fairly technical steep snow climb section so there was some letdown at play as well. Need to stay focused at every moment on that moment. So, lesson is stay focused until all the technical climbing or scrambling is done. 2. We could have done a better job controlling rock fall throughout the day. About an hour before we pulled a rappel rope at the bottom of the third rappel with one of the party in position so some pebbles rained down on him. Not serious, but this was a scramble section that is not well-traveled so this should have been anticipated and only done when all could be clear. This was complicated by being on a ledge above a moat and steep snowfield with limited space to get geared for snow travel not unusual for Mountaineers' activities.	Rockfall
Jun- Climbing 21	Significant	Slip, Fall, Capsize	hit/cut - equipment, tool	Snow - steep, ice axe, poles recomme nded	LEADER: After climbing SEWS, we descended on snow from the notch S of SEWS. Immediately after we entered the gully, a team member (M) slipped and fell. M was able to arrest the fall. But during the process, a chunk of ice or rock hit M arm, bouncing M ice axe into M chin, and cut a gash. As a result, M also suffered a bruised forearm. A rope leader bandaged M up and M was able to descend on M own. Later in the evening, M visited urgent care and received 4 stitches on chin. M had the arm X-rayed and it was confirmed there was no breakage.	LEADER: We were not wearing crampons at the time of the incident. We ascended the gulley in the morning and the snow was soft enough. It was a mild day, in the 50s. However, unexpectedly, there was a hard layer underneath the soft layer, which contributed to the slip. Everyone in the party put on their crampons after the incident and proceeded carefully. In retrospect, we could and probably should have put on	Ice Axe

						PARTICIPANT: One of the participants had to self-arrest and hurt chin which caused a laceration. Another participant provided first aid and applied gauze to stop the bleeding. The injured participant was able to complete the trip without any issues. M had to seek medical assistance after the trip was complete. M got four stitches and is doing well.	crampons out of precaution. The gully is NE facing, therefore didn't receive sunshine during the day despite it being a partly sunny day. PARTICIPANT: Evaluate the snow conditions closely before attempting to walk down the steep snow field. Crampons could have prevented her fall possibly. A lot of us were new to snow traveling and were not very confident in going down steep areas. Plus, the snow was a little too firm for plunge stepping. After this person fell, everyone behind her stopped to put their crampons on. Thankfully she is doing okay.	
Jun- 21	Canyoning		Slip, Fall, Capsize	hit/cut - natural object	rock - technical, rope & protection needed	On the third rappel of Change Creek, the first person (P) down discovered a deep laceration in P right shin. P was unaware of injury until P climbed out of the pool onto the sunny rock and noticed bleeding. It was probably 10 minutes before two others descended - and saw the subject basking on the rock, looking relaxed, and P did not make any indication that P was injured. When others arrived, and P showed us the injury (which at the time was a slice in his wetsuit and a lot of blood), we began first aid while the third teammate searched for what could have caused the injury. We were able to remove the subject's wetsuit and saw a deep, clean, laceration. Given the volume of blood, we weren't sure whether we'd be able to get P out ourselves, so we alerted a canyoning friend who lives in north bend, knows change creek well, and is on SAR, that we may need help getting out. Luckily, a pressure bandage was able to control the bleeding, and feeling no pain, the subject indicated that P felt ok to walk out. The third teammate and I discussed options. We considered moving down through the creek, as moving down on rope can be easier and safer than a sketchy uphill scramble. But because of the open wound, and the fact that we could not put P wetsuit back on, we needed to keep the subject dry. The third teammate (T) scrambled up to find a route to the trail. It included a 10' climb, which T was able to ascend, and drop a rope. Because we all carry mechanical ascenders, the subject was able to ascend without much difficulty, and we were able to walk out. At the cars we let our friend know that we didn't need help, and the subject drove to urgent care, where they cleaned and closed wound with a steri-strip type bandage.	None of us could figure out how this happened. The subject indicated that P rappel was clean (did not swing). As it happens, P was also on a top belay on a second rope because the purpose of this trip was rescue practice, and so the third teammate and I were practicing top belay techniques. The subject is also a reasonably experienced canyoneer. Lesson 1: having at least 2 roller gauze in your first aid kit is hugely beneficial when it comes to pressure bandages. Definitely worth it for the bulk Lesson 2: In a canyon, water plays a big role in evacuation choices. Had P rolled ankle, we likely would have chosen to move him through the canyon, because we can protect almost everything with rope, and P could have kept wetsuit on. If we had had no other option in this case, we would have had to find a way to waterproof his wound, and likely cut wetsuit in a way that P could wear it but we could still monitor wound. That would have taken a long time. If it hadn't been warm and sunny, hypothermia, not just for the subject but also for the rest of the team sitting around waiting would have been a consideration. We would have had to create warm points with emergency blankets and candles (which we had - but that would have just taken more time). Lesson 3: Our community's focus on efficient ascending techniques and year-round practice with ascending really paid off. The subject had no hesitation and did not need coaching on how to ascend. It's one of those skills you seldom need, but when you need it, being proficient is critical. Had the subject not been able to ascend, our exit would have been much longer and more complicated.	
Jul- 21	Climbing	Significant	Slip, Fall, Capsize	injury/ illness - self- inflicted,	trail	Participant slipped on a root on a wet trail on the way back from climb ~2 miles from the TH. Participant screamed loudly and described sharp pain in right leg. No apparent swelling, bruising, or other disfigurement after MOFA lead examined, and participant said the pain was mostly gone felt OK to walk out. The other members each helped carry the heavier items from the participant's pack for the	One thing we could have done better was for us to more assertively insist on helping carry some of the participant's weight higher up on the trail after they said their tent and clothes somehow got waterlogged at camp, and their heavy pack was throwing them off balance a little. The participant	Trail nav, Conditioning, Judgement

				caused by movement		remaining hike out. Participant was able to walk out OK. After checking in with participant the next day, they said the pain worsened - too painful to walk on and will be calling the doctor to check up on it.	insisted on carrying their own stuff, however, and so we let them do so. I don't know that helping ease the load from the pack would have prevented the slip, but perhaps it might have. Another thing we could have done was to remind the participants to tread carefully because it was a wet trail with slippery roots.	
Jul- 21	Climbing	Near Miss	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - technical, glacier, rope needed	PRIMARY LEADER: We were roped up in two teams on the Banded Glacier. Rope lead led out the first team because I thought there were not going to be any major obstacles to encounter. We did encounter bare glacial ice blocking our way and I instructed rope lead RL to traverse left on 30–35-degree semi-ice terrain in search of snow. What I thought to be snow turned out to be solid ice and as the assistant turned around to retrace traverse RL slipped and fell uncontrolled for approximately 30-40 feet and hit a large (2ftX 2ft X3ft) rock resting on the snow. The rock dislodged and continued down the slope and the climber was arrested by the next person on the rope. RL suffered minor wounds, but I believe RL was very lucky and the outcome could have been worse considering the impact. RL regained feet and traversed back across the ice to the snow. There was no further incident.	PRIMARY LEADER: As mentioned, when the terrain changed, I should have taken the lead. ASSISTANT LEADER: Spend more time evaluating the hazard. I made the choice to travel on the hard ice without fully considering the consequences. I was overly confident in my abilities and that the route would be passable. Setting pro to mitigate the consequences of a fall. I could have set a picket prior to exploring the other areas of the hogsback. This would have shortened my fall and not relied on my team to arrest the fall.	Snow travel Judgement
						Contributing factors include my preconceived idea that the route was going to be snow which led to putting my assistant in the lead. When the assistant encountered ice, I misjudged RL abilities and sent RL onto terrain RL was inexperienced at navigating. I should not have sent any assistant onto such terrain. I believed RL was going to find snow which RL in fact did not. It was an error in my judgement. The route had apparently "melted out" sooner than expected due to the extreme heat. In the future Basic climbs may encounter uncommon and unexpected glacier conditions due to increased summer temps and should be aware that some routes will melt out sooner than expected.	PARTICIPANT: 1) The most critical thing that led to a positive outcome here is that the whole upper rope team arrested IMMEDIATELY. It was 100% automatic, no hesitation - everyone was on the ground, dug in, within less than a second of the fall. It was very clear that everyone on that team had practiced self-arrest to the point of it being muscle memory and, because of that, the system worked, and everyone made it home safely. 2) We probably should have placed some sort of protection (at least a running belay) on this section. It wasn't that steep, but the presence of exposed, bare ice should have indicated	
						ASSISTANT LEADER: My own inexperience on hard ice. I was overconfident in my ability to remain stable and arrest on hard ice. I did not evaluate the hazard correctly. My confidence in the route description. I had read the route to go up this hogsback feature, and somewhat subconsciously assumed that it would go. I did not give proper consideration to the fact that the conditions I was seeing may have been much different than those in the trip reports I had read.	to us that there was a much higher risk of a fall here, that such a fall would probably escalate very quickly, and that self-arresting may be significantly more challenging than we're all used to. I think the main issues that contributed to us not taking the step to place pro was that 1) every trip report and GPX track that we studied mentioned this section, so we fell into the trap of going "yeah this is the route let's send it"	
						PARTICIPANT: We were heading up the glacier and hit a steep section that had melted out, so there was a lot of bare, exposed ice. One of the leaders was scoping out the slope to try to find a line with enough snow remaining for us to make our way up. They thought they had found a pretty soft section, so the rest of their team began to traverse over to where they were. However, they ran into more ice and realized that the section was not safe, so they and the other climbers began to retreat back towards the snow. At this point they slipped, and	rather than considering the terrain more carefully, and 2) it didn't feel any steeper or any more exposed than any of the terrain we had just been travelling on, so I think we sort of let our guard down and didn't pay enough attention to the hard snow and ice. 3) We should have been much more careful/deliberate with how we had the rope teams positioned. If the upper team	
						the ice caused them to accelerate very quickly down the slope. They were not able to arrest because the ice was too hard, and so they came crashing down pretty hard onto a large boulder below, sending it flying down the hill towards the second rope team. One of us lifted the rope up so that the boulder wouldn't run into it. The rest of the fallen climber's rope team was able to arrest, so they were	had been unable to hold the fall, they would have come crashing down onto us, which could have been catastrophic. Again, I think the terrain just didn't feel _that_ different from what we had just been travelling on, so we were just continuing to follow the first team up and did not consider	

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						able to catch the fall, and everyone was able to make it back over to safety. The	that we were entering higher risk/higher consequence	
						second rope team was directly below the first rope team. The slope was partially	terrain. I think it would be good to not only emphasize slope	
						protected by a large boulder field below us, but the fall line led directly down	angle and exposure in class/on field trips, but also talk about	
						towards a very heavily crevassed section of the glacier (which is where the	the type of snow being travelled on and how much	
						boulder ended up tumbling into). There was a fair amount of slack in the system	quicker/more aggressive falls can be on slick ice vs. the nice	
						between climbers.	soft snow that we're typically practicing self-arrest on.	
							PARTICIPANT: 1) In retrospect, we should have protected this	
							section as it was pretty steep and there were a lot of	
							objective hazards (rocks, crevasses) below us (not to mention	
							that several of the trip reports specifically called out this spot	
							as probably needing at least a running belay). I think the	
							consequences of a fall here would have been pretty dire and	
							even though we all felt pretty comfortable w/ the angle of	
							the snow we should have paid more attention to what we	
							were climbing above.	
							2) The way we positioned the two rope teams was probably	
							not ideal. The rope team that caught the fall was directly	
							above the other rope team, and we were all spread out	
							across the slope, so if the upper team had not been able to	
							hold the fall (which is not super unlikely given that 2/4 of	
							them were on ice) they would have come crashing down on	
							top of the 2nd rope team. In addition, we left a good amount	
							of slack in the system which would have made the falls more	
							dynamic and more difficult for everybody to attempt to	
							catch. In retrospect, we should have been a lot more	
							deliberate with our positioning to minimize slack in the	
							system and also to not unnecessarily increase the consequences of a fall.	
							·	
							3) I want to be super clear; I don't think anyone was being	
							especially reckless or that the leaders were taking	
							unnecessary risks or anything like that - everyone was pretty	
							alert, cautious, and vocal about terrain difficulties the whole	
							weekend, and we took a lot of steps to mitigate risk	
							throughout the weekend. I just think we did not take enough	
							time to evaluate the terrain and consider how difficult it was	
							actually going to be for us to travel on or how much the	
							terrain and our positioning would amplify the effect of even a	
							small slip on the ice. I think we also sort of fell into the trap of	
							"well all the trip reports and GPX tracks said this is the easiest	
							way up so yeah let's send it", which also contributed to us not	
		 	au =				taking sufficient time to consider the terrain.	
Jul-	Climbing	Major	Slip, Fall,	injury/	Snow -	Following a successful summit of Mt Rainier via the Emmons route at about 7 am,		Gear Snow
21			Capsize	illness -	technical,	all three rope teams (eleven people in total) were back safely at Camp Schurman	Especially following a strenuous climb where everyone in the	Travel
				self-	glacier,	by 12:30 pm. Five of the eleven participants (including three of the five trip	party is tired, more intentional discussion and decision-	Judgement
				inflicted,	rope	leaders) decided to spend the night at Schurman and were planning to hike back	making is important. On a climb like the Emmons,	
				caused by	needed	to the trailhead the next morning. The remaining six members of the trip decided	successfully making it to the summit or even back to base	
				movement		to hike out to White River on that afternoon. The last two of the six departing	camp is not the end of the climb. The Interglacier is still a	

participants left Camp Schurman around 4 pm, ascended Steamboat Prow and began descending the Interglacier. One of the two slipped on exposed, wet, glacial ice and took a fall, landing hard on hip; P was not wearing crampons at the time. P was immediately in quite a bit of pain and unable to put any weight on leg, so spouse recognized a rescue/evac was likely to be necessary. Spouse contacted 911 at 5:05pm and indicated that the Camp Schurman ranger(s) would be best positioned to assist. 22 minutes later spouse received a call from the rangers @ Camp Schurman.

The climbing rangers informed me about the situation and asked for our assistance in the rescue. One of the other climb leaders and I gathered extra gear and clothing, carried some of the rangers' rescue gear, and climbed over Steamboat Prow before descending the Interglacier to the victim's location, arriving around 7:15 pm. The other climb leader and I stayed until about 8 pm before heading back to avoid traveling over technical terrain in the dark; we arrived back at camp around 9:30 pm.

A heli evacuation was not possible that evening so the climbing rangers stabilized P, transferred P to a litter, and performed a series of lowers from the glacial ice to a safer location where a tent platform could be dug out. The location of the tent platform was adjacent to a rocky area where an ad-hoc heli pad could be fashioned. The victim was made as comfortable as possible and both climbers spent the night in this location. The two climbing rangers also spent the night to monitor the victim and prepare for evacuation the next morning. Next morning, the remaining climbers at Camp Schurman were in contact with the victim's spouse about P evacuation plans and what we could do to help. It was not possible to accommodate spouse in the helicopter with P so we made plans to meet spouse at their camp on the Interglacier so we could proceed out together. The victim was heli'd out at about 10:45 am as we were descending the lower Emmons. We arrived a short time later, helped spouse pack up camp, and walked back out to White River as a group without further incident.

The victim was transferred to an ambulance then taken to the nearest hospital in Puyallup. P was later transferred to Harborview for surgery for what turned out to be multiple fractures of upper femur near the ball &socket of the hip.

Contributing Factors:

Although we made good time on our climb, all participants were tired so extra caution was warranted for those choosing to hike back to the trailhead.

About a week prior to this climb, the PNW had a significant heat wave which caused larger sections on Interglacier to be exposed glacial ice. The warm temperatures and clear days also caused there to be more running water on the ice, making it more slippery than it would have been otherwise.

The victim was carrying a full pack which was much heavier than a summit pack. This likely created a greater force on hip/leg after P slipped and hit the ice.

The victim's sleeping bag (packed) rolled down the Interglacier on the first night's stay at Camp Curtis. On the way down, the two climbers were looking for it, potentially causing the victim to veer more on the exposed ice than would have

hazardous part of the trip and care must be taken to mitigate objective risks. Using the right gear such as crampons to mitigate environmental hazards such as exposed ice is essential.

On a positive side, the climbers on the Interglacier demonstrated good decision-making skills to immediately contact 911 and get in touch with the Camp Schurman rangers. This decision greatly increased the likelihood of getting help that evening, before dark.

The remaining climbers pooled their resources effectively, assisted with the rescue, and helped ensure everyone else make it back to the trailhead safely. If the climbing rangers hadn't been at Schurman that night, it's likely that the party would have needed to manage the rescue on its own, stabilizing the victim, and preparing for an evacuation the next morning.

What could have been done differently:

A more intentional conversation could have taken place between the trip leaders and the members of the party departing that afternoon. These conversations could have included things such as: staying together as a group; hazards that could exist on the descent (e.g. ice and open crevasses on the Interglacier; loose rocks on the moraine above Glacier Basin); issues that can occur transitioning between different conditions (e.g. between soft snow and ice as well as dry ice and wet ice.); gear required to be used on the Interglacier (e.g. harnesses, crampons, helmets, ice axes, whether and where to rope up, etc.); resources that the departing party had to address an incident (e.g. glacier rescue gear, communications, first aid, etc.)

Navigating down the Interglacier is not straight forward. Although there was a clear boot track, there were quite a few tracks off to either side. We also ascended a different route (further climber's right) than we descended (closer to the center.) Staying on the well-established boot track (which was almost all soft snow) could have prevented the slip and resulting mode of injury. 'The descending climbers could have recognized that the conditions on the Interglacier required the use of crampons, helmet and harness, especially before leaving the boot pack and venturing out onto wet ice.

						otherwise. To the right of this exposed ice was soft snow, with a boot path leading through it.	
Jul- 21	Climbing	Near Miss	Slip, Fall, Capsize	fall (travel a distance)	rock - technical, rope & protection needed	LEAD: A participant on Tooth climb forgot to bring a belay device and leader chose to lower the participant on belay instead of rappel. This would have allowed rope to be ran to the next anchor instead of requiring toss on a crowded route and rope tangle cleanup. Unfortunately, during first lower, participant lost balance and went off the terrain on climbers right. Distance was such that leader belaying did not hear the urgent call to stop and take. Communication was quickly re-established through others in the vicinity, and participant was able to regain the route to reach the next rappel anchor. CO-LEAD: One participant arrived at the base of the climb and realized P did not bring ATC. The leader had already identified this participant to climb with L, and L volunteered to let P use L ATC and L would belay P up on a Munter. At the summit, there were discussions about how to descend because numerous participant, thus allowing the leader to use ATC to rappel. The participant was okay with this because P said P wasn't confident rappelling anyhow. The leader began lowering the participant, and shortly thereafter, our rappel ropes (which another group had been using with our permission) were free, so I began to rappel. Midway down my rappel I heard the participant begin frantically shouting "take". It was clear the leader did not hear P, so I began shouting up to the leader, relaying the command to "take". The leader stopped lowering the participant and allowed P to re-stabilize. P then gave the all clear to be lowered and the leader resumed lowering. I reached the base of the climb without incident.	Gear Judgement
Jul- 21	Climbing	Near Miss	Hit, Struck,	hit/cut - natural object	Snow - technical, glacier, rope needed	ASST LEADER: Our rope team was descending from Mt Baker via the Coleman Deming route. We were descending the Roman Wall, about 600-700(?) feet down from the pumice/rock area near the summit plateau. Another rope team working their way thru that pumice/rock area at the top of the Roman Wall dislodged a cantaloupe sized rock, and it tumbled down, narrowly missing multiple climbers who were also descending. Our rope team was very fortunate, as it narrowly missed hitting us in the head - it passed over our ducked heads by 2-3 feet at most. Surprisingly, nobody was hit by the rock even though it followed the boot path in the middle of the slope. MENTOR LEADER: We left the summit of Mt. Baker at about 8:20 am and was returning to our Black Butte camp via the Coleman Deming route. As we descended down, we entered a band of rock that all rope teams crossed to be able to access the steep snow of the Roman Wall. Because there were a few rope team party was separated because of several rope teams vying for the single, mostly frozen, snowy boot track down the wall. We were slowly climbing down this tricky part of the wall and were several hundred feet below the rock band, when many people shouted "rock". I turned to look up the hill to see a cantaloupe size rock bouncing with great speed right through the middle of our four-person rope team. The lead and the second on the	Rockfall

Jul- 21	Day Hiking	Significant	Slip, Fall, Capsize	injury/ illness -	trail	rope turned their backs to the rock and ducked. The rock miraculously missed their heads by seemingly inches. We were all wearing helmets. When we safely cleared that part of the wall and were on a level area above the exposed pumice trial, just above and to the east of the Coleman Glacier, we took a break. Our second rope team caught up with us and one of the members very apologetically said they dislodged the rock. We then safely returned to camp. We discussed the incident in our post trip brief. Co leader lost balance when crossing a blow down log and fell on side. Sore ribs. Will go to walk in clinic for x-ray to check if any fracture.	Will check in with Co-lead later tonight after Dr. Co-lead noted that CL should have used trekking poles for stability	Trail nav
			·	self- inflicted, caused by movement			and balance.	
Jul- 21	Climbing	Near Miss	Hit, Struck, Cut	hit/cut - natural object	Snow - steep, ice axe, poles recomme nded	NEAR MISS - anticipated rock fall. On climb of Luahna peak ascending the scramble portion of summit block on WSW face of peak, myself and another climber were leading part of the scramble route which required an ascending traverse, so no other climber put themself in the fall line of any above climber - due to heavy and known rock fall danger. This climb strategy was discussed with all climbers before embarking on this part of the climb by the leader - it was a good strategy and clear reasoning was given. One climber did not head this direction, nor my verbal reminders and found themselves directly below the climber directly behind me on the crumbly scramble portion. Rocks were dislodged and fell (as was pretty impossible to avoid) and when we screamed rock (obviously audible) this climber stayed in place, did not look up, and lowered head down. P did not seek shelter. the softball sized rocks went sailing by - a true near miss and I proceeded to yell 'you have to get out of there!!!" P moved slowly with not much urgency. throughout the day this climber appeared 'out of comfort zone' on many terrain aspects which when climbing can be hard to avoid - however this near miss did make me feel uncomfortable. I did make climb leader aware and the importance of a descending traverse not getting directly above those below you were made clear once again. the decent was uneventful, other than being awesome.	Provide more clear, forceful and repeated communication on any climber's lack of attention to the route safety plan.	Rockfall
Jul- 21	Climbing	Minor	Slip, Fall, Capsize	ice axe arrest needed / attempted	Snow - steep, ice axe, poles recomme nded	I got secondhand beta that there wasn't much snow on the hike up to The Tooth and that boots and ice axes weren't necessary. True, it's melting out fast. However, the stretch below Bryant Peak to the talus fields leading up to Pineapple Basin is still there. We didn't have any view to that at the parking lot, however. After some discussion, we made the decision that approach shoes would be our footwear of choice for the day, and we left the boots and ice axes in the cars. We each had trekking poles. When the snowfield came into view at source lake, I knew we should have brought the ice axes at the very least, and boots would have been a better footwear choice. Some in the party had micro spikes. I did not. We descended the talus field and entered the snowfield from above. The foot path traversing the snowfield was broken by emerging caves where creeks had eroded the snowpack from beneath leaving large caves that were a hazard. We entered well above the foot path to avoid those. The slope angle seemed inconsequential. It was bunny hill like. After crossing the creek hazard well above	In hindsight, I knew we were in the transition period where the snow was still there but going fast. I took the secondhand beta at face value and let that override better instincts. Desire to go light and not look the Mountie part probably influenced that decision to forego boots and ice axes. I took secondhand beta at face value. I didn't get that firsthand, where I could question and probe for more detail to qualify the quality of the information. Use secondhand beta as a data point but be wary of taking secondhand beta at face value. Try to speak to the original person who made the observation, probe some and get some detail about why they made the statements they did. Small sound bites of, "you don't need boots or axes," can easily be taken out of context. We made a conscious decision to proceed at Source Lake when the snowfield came into view. It was accepted risk.	Gear Judgement

						the holes, I angled downward to interest the trail, but I lost footing and immediately went down. I tried to arrest but kept sliding in S-L-O-W motion. I came to rest in the foot path. There was just enough friction from the dirt and debris to stop me. I didn't notice it till much later, but I got a solid 6-inch burn of road rash on my forearm that wiped away the dermis.	What I didn't count on was how ineffective I would be at arresting on a bunny hill slope angle. The morning snow was hard enough that I really could not get any purchase to arrest. Carry that forward to the upper Pineapple Basin, where there is more slope angle, large open slopes to gain speed and sharp rocks to stop you, and the potential for danger is high. Reflecting back, I doubt an ice axe would have prevented the fall. Trekking poles are more effective for that where there is little or no slope angle. Mountaineering boots with hard soles probably would have averted this. I would say the same for micro spikes for traction. Once I went down, an ice axe would have stopped me immediately. Fumbling with poles to try to arrest was simply not effective. One a related note, the road rash I got was because I had no layers. I was in a short sleeve tee shirt. The learning here can
							be extrapolated to bare hands with an ice axe. If you need to drop into ice axe arrest with bare hands, the same abrasive snow will wear tear the skin off your fingers, and there's a good chance you'll lose control of the ice axe head. Wear gloves when traveling with an ice axe.
Jul- 21	Canyoning	Near Miss	Slip, Fall, Capsize	fall (travel a distance)	rock - technical, rope & protection needed	Account of failed anchor for guided rappel. This incident occurred at rappel #6 in upper Rachor. Two groups (group #1 and group #2 for the report) were in the canyon to complete a final assessment of the basic canyon course. The leader of group #1 and an advanced student with SAR rope rescue and Mountaineers leader experience arrived at rappel #6 for an assessment. The student rigged a traverse line and a rappel rope quickly without error. The leader approached the student and had a conversation about ways to move the rest of the group through the pitch safely and efficiently.	Do not fully trust natural anchors for guided rappels. Consider placing a team member to constantly monitor the anchor and rigging. Member should be prepared to release some tension at the first sign of anchor instability. Consider using separate rope for a guideline to provide some redundancy for the rappeler.
						A decision was made to rig a guided rappel to move group members down the pitch based on all the circumstances if a bottom anchor was available. The leader rigged an independent double rope as a retrievable guideline to not interfere with the students rigging and rope considerations. The leader rappelled to the bottom and found a large rock at the bottom of a rockfall pile in craves on the opposite side of the canyon. There was a pinch point at the top and after some excavating, an anchor rope was passed around the rock below the shoulders of the rock and the pinch. The rock appeared secure with no movement and seemed "wedged" into place. An anchor was built around this rock. The leader used a vector pull to tension the guideline as needed by clipping to rope and hanging from it. This also	
						maintained a better angle for the guideline. The first person down the guideline was a group #1 assistant with rock experience. It was determined the guideline had too much slack, so some slack was removed but still not tensioned. The assistant verified the rigging and the anchor and monitored the rock during the next rappeler. The rigging and rock appeared secure, and the evolution continued. The rest of group #1, six people in total, descended the guided rappel. The leader of group #2 expressed there were students having difficulty on rappel as well and a decision was made to use the guideline for group #2. The co-lead of	

				group #1 moved to the last pitch to allow two students a chance to rig again for an assessment. Group #1 lead and assistant remained at the guiding anchor and provided tension to the line for the assistant of group #2 to descend. At the crux of the rappel, the most tension was applied as the rappeler dynamically loaded the guideline. At this point, the rock at the bottom became dislodged and rolled forward. The leader yelled "rock." The person on the rappel fell about 3-4 feet onto a ledge but remained secure on the rappel rope due to it being separate. Everyone stopped and the leaders verified everyone was ok. Once it was identified what had happened the person continued on rappel and the guideline was cleaned. The remainder of group #2 continued to rappel without a guideline.		
Jul- 21 Canyoning Minor	Slip, Fall, Capsize	equipment issues	rock - technical, rope & protection needed	This is a summary report based on conversations that the committee chair and other leaders present had with participants and assistant leaders who had a role in the incident, including a conversation with the leader prior to the leader submitting his own narrative at the committee chair's request. This incident cannot be coded in just one way. It is a minor injury, a significant equipment failure, and a major near miss. On Rappel 6 in Rachor Creek, during the course assessment, the Leader (B) made the decision to rig a guided rappel. B described a concern that they were moving slowly and causing a bottleneck for the group behind them. The decision to rig a guided rappel was for the purpose of assisting challenged rappelers and moving students more quickly through the 30m rappel. B descended the waterfall and rigged a guideline using a separate rope. B chose a boulder nested in a crack/socket in the wall of the grotto. The boulder was approximately 3'x3'x2'. The guideline was intentionally rigged with slack for two reasons: 1. Because B was concerned about an upward direction of pull on the boulder; 2. Because B wanted participants to stay as close to the wall as possible. The system was designed to have human vectors to tension the rope to clear upper obstacles, then release tension as the rappeller worked their way farther down rappel, keeping them closer to the rock. Once the guideline was rigged, 6 individuals (4 students and 2 instructors) descended the waterfall using the guide line, and the human vector system as designed. Before the Assistant Leader descended, they talked to the Leader (J) of the group immediately behind them, asking if they'd like them to keep the guider appel up for their students to use. Because the participants of the second group had seen the guided rappel, the Leader of that group agreed to have them leave the guided rappel rigged. When the first instructor of the 2nd group (A) descended, they were thus far the heaviest person on that system. The two individuals vectoring the gui	Near Miss Analysis: guided rappel failures can be catastrophic as they intentionally pull the rappeller away from the rock, suspended high above the ground. Had A been further from the rock when the guideline failed, they could have pendulumed much further, hitting the rock much harder, causing serious or even fatal injury. Had the boulder rolled further or faster, it could have seriously injured M & B, who were tethered to the rope in front of it. Technical Analysis: one of the main apparent causes of the anchor failure was the positioning of the bottom anchor boulder. The boulder was nestled in a socket in the wall. Although it appeared lodged in securely, it was positioned above a down-slope. It may be that the boulder appeared to be bigger than it actually was, but in the photos submitted it was a relatively small boulder. Another contributing factor for the anchor failure was that there were two people vectoring the guideline in an effort to manipulate its angle and keep the rappeller further away from the flow and slippery rock surface. The addition of two people hanging on the guideline added significantly to the forces being applied to the anchor. In addition to body weight, the vectoring created extreme angles which multiply those forces on the anchor. The forces being applied to it seemed to be pulling it in a direction that caused it to teeter and roll out of its socket. By vectoring, the direction of pull was in tension (pulling the boulder straight out). Although the boulder held for the first 6 people who rappelled down, each successive rappeller took more slack out of the components of the system that typically absorb force (e.g., knots). When the 7th rappeller, who was heavier than the others, weighted the guideline, the two individuals tensioning the system were lifted in the air - thus they no longer had control. Without any components of the system left to absorb force, the entirety of the force was transferred to the boulder, which gave way.	Gear Setup Judgement

						the right hip. The boulder rolled towards M &B, who were vectoring the	The Mountaineers should be used. As of 2021, these include:	
						guideline, but it stopped about 4' before reaching them.	classic guided rappel on a single rope, tensioning against a	
							block, releasable from below; guided rappel in a loop system,	
						The rappeller (A) gave the "I'm ok" signal to the Leader (J) at the top of the rappel.	using a single rope, tensioning against a block, releasable	
						At the bottom of the rappel, the Leader who rigged the failed guideline (B) went	from below: guided rappel on a separate rope (separate	
						over to see if A was ok. A said they were ok. B then walked away towards the top	system), tensioning against a block, releasable from below. If	
						of Rappel 7. A full patient assessment was not done on the rappeller (A).	using a boulder as a bottom anchor, the one selected should	
							be larger than might seem necessary. It should have solid	
						After Rappel 7 (the final rappel), the group did a full course debrief. They did not	grounding, flat rather than rounded geometry, low potential	
						debrief the failed anchor incident, as most students did not witness it. After the	to roll, and a positive (upward) slope in front of it to prevent	
						group left, the Leader (B) returned home, while some of the group joined other	it from moving in the direction of pull or down a slope.	
						groups from the course at North Bend Bar & Grill. The Leader of the 2nd group (J),		
						the assistant leader of the 2nd group (S) and the assistant leader of the first group	Guided rappels have a high accident rate and should be	
						(L) informed the Committee Chair of the incident. The following day, the	treated with respect. The person rigging should be well	
						Committee Chair and S reached out to B &A. The Committee Chair also drafted an	versed and practiced in guided rappel rigging and theory,	
						email to students who were present, inviting them to share their perspectives or	"and" a second person with similar experience should	
						concerns. The Committee Chair also reached out to the student, M, who was	examine the anchor and rigging prior to use whenever	
						vectoring the guideline when the anchor failed. Over the course of the following	possible. Natural anchors that are less than "bomber" should	
						week, the other leaders, J &L, also reached out to B, A, M (student). Both A &M	be backed up/redundant. The system should be monitored	
						indicated that they are emotionally fine post-incident.	and managed by the rigger at the bottom anchor. Additional	
							forces on the anchor (such as having additional people hang	
							on the tensioned line to change its angle) should be avoided.	
							If an unquestionably sound bottom anchor cannot be located	
							or constructed, a guided rappel should not be used unless it is	
							the only safe option.	
							Protocols: trip parties (including course field trip parties)	
							should have designated roles & responsibilities such as a first	
							aid lead and an alternate lead. These roles/responsibilities	
							ensure that everyone is attended to during an incident,	
							including anyone injured and anyone traumatized. In a	
							course context, only techniques taught in the curriculum	
							should be used unless extenuating circumstances require	
							more advanced techniques. In all cases, unless extenuating	
							circumstances require otherwise for participant safety, only	
							techniques approved by The Mountaineers should be used.	
							On Mountaineers trips, students & participants should not be	
							engaged by leaders in techniques not vetted by The	
							Mountaineers. Leaders are expected to follow up with the	
							committee chair within 48 hours after a significant incident.	
Jul-	Day Hiking	Major	Slip, Fall,	injury/	trail	LEADER: 6 PM. I had just taken a group photo on top of Little Si. I took a step	LEADER: I actually have been trying to make it a habit to put	Trail nav
21			Capsize	illness -		forward without looking at my feet and tripped hitting my face on a rock. WFA	my camera back in my case before moving on. I didn't follow	
				self-		instructors emphasized the need for X-rays after a head injury. Both CRTs were	my own procedure.	
				inflicted,		negative. Watching for possible signs of concussion today. Barring that my only	CO LEADED. I falt if I had not come a constraint to conflict	
				caused by		problems are embarrassment and the fact that I look frightful.	CO-LEADER: L felt if L had put camera away prior to walking	
				movement		CO LEADED: Loader sustained a head injury after falling and hitting head are	forward L would have been paying more attention to steps.	
						CO-LEADER: Leader sustained a head injury after falling and hitting head on a	DARTICIDANT: Those things happen to the host of us. Sust he	
						rock. Small laceration above left eye. I bandaged L up, L was alert and oriented x	PARTICIPANT: These things happen to the best of us just be	

						4. Three of our group hiked down with L. One of our group took L to Snoqualmie Valley hospital to get her checked out. I lead the rest of the group down a little later. PARTICIPANT: This happened to our hike leader. I was designated "first aid lead" but we had a skilled registered nurse on our hike who tended to the injury. Our leader took our group picture at the top of Little Si (on the large rock where most people sit and enjoy the view). This is what I witnessed: at 6pm, once L took our picture, as L was looking down at camera, L took a step forward and tripped, and hit forehead on the rock "ground" which was very uneven easy for anyone to trip and fall up there. L cut forehead (about 1/4") just above left eye and had a minor scrape above lip. Once L was bandaged, L took 3 ibuprofen and was able to get up on feet. L decided to hike down and drive to the hospital (3 of us joined L to make sure L made it down safely). I then followed L to the hospital in my car and stayed with L until 10:15 or so after L was treated, evaluated and released. As of the next afternoon L is doing fine and recovering at home.	more aware and don't allow yourself to get distracted when walking on uneven rock. Always get checked out at the hospital if you have any sort of head injury.	
Jul- 21	Climbing	Significant	Slip, Fall, Capsize	fall (travel a distance)	rock - technical, rope & protection needed	LEADER: leader of second of two rope teams of 2 took a fall while climbing v-slot leading to notch at the base of summit block on West Ridge of Mt Stuart resulting in laceration on their forehead, abrasion on fingers and damaged backpack strap and jacket. Longer version: party of 4 planned climb West Ridge of Stuart with plan to summit same day and bivy in summit area. Team was making good progress and got to the base of West Ridge Notch around 3PM. First team started leading technical section, flipping to north side of mountain, which ended up being divided into 2 pitches - both rope teams ended up pitching it same way. After topping out on notch just below summit block (i.e., 2nd pitch on north side), first rope team waited for second team, after being able to hear leader closing in, they decided to down climb to ledge below the summit block and scout out the best way to proceed next (it was around 3:57PM). About 5-10 minutes later, person leading 2nd pitch on north side radioed in that they fell, injured their forehead, are bleeding and need assistance. First rope team scrambled back up to the notch, and one person belayed other downclimbing to spot where they could see and talk to climber that fell. After short discussion, first rope team decided to build an anchor directly above fallen climber and lower top rope to them, so they can climb up and get some assistance. They first tried to haul backpack, but due to nature of route, they ended up clipping backpack just above fallen climber so that they could guide it around protruding rocks. In mean time, other climber in first rope team pulled their first aid kit and water to be ready to assist as soon as fallen climber arrives. With top rope assist, and backpack off their back, injured climber was able to climb to top of pitch on their own power. As soon as that happened, they were being helped by other climber of first rope team, while person belaying switched to belay follower of 2nd rope team. Person attending to injured climber did quick assessment (phy	LEADER: I think the biggest learning for climb leader is to make sure to discuss all possible options of dealing with extra difficulty that might be unknown for some less experienced team members. In this case, heavy backpack was that 'additional difficulty' - we had 2 less experienced climbers in that regard (although they were great at managing weight of their packs, much better than me - both having extensive thru-hiking experience). During approach, we did talk about hauling backpack as one option, but never discussed other tactics, and based on route description and other party reports, I was not anticipating need for that, which I also verbally stated, possibly adding bias to other team members decision making. Neither did we discuss other options of dealing with it: leaving backpack behind clipped to piece of protection; building intermediate anchor if climbing becomes harder than expected; aiding a move; asking belayer to 'take' to remove slack from system and/or rest and scout next moves. I will make a point of always bringing those points up. Another learning is to check your first aid kit regularly. We had quite good amount of supplies, but tincture of benzoin was expired - in two of the kits. Luckily, steri strips stayed put without it, but they would not if applied to part of skin that stretches while moving. INJURED CLIMBER: All in all, it is tough to find specific actions that I would have done differently, but here are my main takeaways: Climbing with a full backpack is hard, consider hauling it up past crux moves. Before making a committing move, consider belaying up my second to look at the crux with me	Skill Judgement

across laceration and megaderm to seal the wound. In mean time: injured climber self-tended to finger abrasion (using antibiotic ointment and band aids), follower of 2nd team created ad-hoc fix to fallen climber backpack strap, and last person was applying duct tape to fallen climber puffy jacket that was losing feathers. Overall, great teamwork, and efficiency.

Team had discussion on best way to proceed forward, and decided to proceed to summit, but reduce exposure to risk by joining both teams in form of caterpillar: one of first rope team leading, then second person from first rope team at end of original rope would also bring 2nd team's rope, with injured person tied into 2nd half of it, and other member of 2nd rope team at the end. After belaying downclimb to ledge below summit block, and form there 3 pitches to summit, team summited at 6:30PM and descended to cars following day.

Team believes one of the factors contributing to fall was large and heavy backpack due to carry over type of climb and large amounts of water carried.

INJURED CLIMBER: Relatively fresh trad leader took lead fall climbing the final pitches of the West Ridge or Mt Stuart. Climbing with a full backpack and 3 liters of water to dry camp the night may have made the moves feel harder and contributed to the fall. Fall was not clean, fell maybe 15 feet past two pieces of protection which both stayed in. Climber got tangled in ropes and flipped upside down, ended up with a forehead laceration and a number of scratches. Forehead was steri-stripped, tacidermed and the team elected to continue climbing to the summit and stayed the night as planned. The following day hiked out via Cascadian couloir and got medical attention at an urgent care. The doctor said the wound was not deep enough to need stitches.

The climbing seemed easy and blocky so they were all leading with a pack containing enough gear and water to spend the night. The more experienced climbers headed up first, route finding and scoping out belay spots and we followed up switching leads. It was the 3rd pitch for us, I had climbed up, around a corner from my belayer and was almost at a good spot to belay. I had climbed up a gully/corner feature and encountered a choice between going left or right around a blocky feature with decent pro below me. First, I went up left, and the climbing was more laidback and overhung than I thought it should be, so I climbed back down and tried going up to the right in a body width crack. The climbing felt more secure, wedged into the crack, but then gaining the top turned out to be a little more committing than expected and shimmying up a crack with a full backpack on was probably more awkward than I thought. I took a fall with my last piece around on level with my foot. It was fully extended, and since my belayer was around a corner and I had climbed up and back down again there was more slack in the system than I expected.

I tumbled down the gully/corner and got flipped upside down. I ended up below both the first piece below me (.75 cam with single fully extended) and the piece below that (a slot that I had managed to thread). I remember bringing my hands up to protect my face as I tumbled down. My belayer heard me scream but did

When route finding past a crux, deep into a committing climb consider whether the move is aid able.

When choosing a committing move, first downclimb and yell "take" so I know exactly how much slack is in the system. Squeeze moves are generally better protected than layback flake moves, however with a backpack this is not necessarily true.

Practice a static style of climbing for alpine trad, whereas frequently I climb in a more dynamic gym/sport influenced style by default.

Decisions we made that I am happy with:

I was wearing a helmet

We were climbing as two teams of two and everyone was a strong climber.

We had a radio for communicating between teams.

I asked the other team to come back and provide assistance instead of handling it myself.

We climbed together to the summit and I did not have to lead any more sections that day.

We decided to push on to the summit and the descent instead of trying to bail somehow.,

I climbed with an excellent team who reacted calmly and collectedly, who were able to provide medical attention and support for the remainder of the trip

All in all, it could have been significantly worse, I'm very grateful for the opportunity to treat this as a reminder that I still have a lot to learn.

						not feel the rope go tight as if there had been a full fall. I don't really remember what halted my fall, probably a combination of the rope and being slowed down by various rock features in the gully. I do not believe I blacked out. I did a quick self-assessment for blood or anything blocked and used my phone to identify a laceration in my forehead. I had also ripped one strap off my backpack and the puffy I was wearing. I radioed up to the more experienced party and asked them to come back and assist, and continued to assess my gear and ability to continue to climb, and communicated with my belayer that it would be a little bit but did not actually confirm there had been a fall. With the other party's help, we hitched my backpack to their rope, they put me on belay and I climbed up to the next belay ledge. I was able to climb the left version of the route without too much difficulty even with a backpack dangling in my way. From there, one of them provided medical care while the other belayed my second up. After it was determined that I did not have symptoms of shock, a concussion, internal bleedingthe climb leader poured water over my forehead to clean it out, applied antibiotic cream, steristrips and finally a taciderm to keep the laceration covered and from getting larger. (These would hold the entire night, next day and get an enthusiastic thumbs up from the nurse). From there someone fashioned me a backpack strap with an alpine sling. We continued climbing all together, electing to put me in the middle of one rope with an alpine		
						butterfly and my second below me so I would not have to lead or belay any more.		
						We reached the summit in this fashion, spent the night, and hiked out the next		
						day. I moved slower than the rest of the group but did not require additional assistance. I went to Urgent Care and was told that the wound had not gotten any		
						bigger, was relatively clean and was not deep enough to have needed stitches.		
Aug-	Scrambling	Significant	Slip, Fall,	hit/cut -	rock -	LEADER: On our traverse between Mount Pleasant and Knapsack Pass, a party	LEADER: Having three medical doctors on the scramble was	Weather
21			Capsize	natural	talus,	member fell while walking on a Boulder field. P had a significant laceration on	great! Sometimes falls happen, and in this case, it was	
				object	boulders,	hand that cut to the bone. Immediate medical attention was provided. We	handled swiftly, with proper attention given to keeping all	
					scree	assessed that P capillary refill was good and likely did not have tendon damage.	party members safe. It was pouring down rain and windy and	
						We stopped the bleed as much as we could, bandaged P up, and walked back to	we made sure everyone added layers so that we didn't create	
						the trailhead via Knapsack Pass in just over an hour, foregoing our other planned	additional patients.	
						summits. P went to urgent care and received 9 stitches. It was very wet and	PARTICIPANT: nothing.	
						windy, which could have contributed to the fall. P also been traversing slightly		
						higher than the boot path, making the terrain slightly more difficult (still class 2 at		
						most).		
						PARTICIPANT: Fall, cut finger on rock, could see ligament. Lots of blood. Subject		
						hiked an hour to cars. Went to Urgent Care same day and got 9 stitches.		
Aug-	Backpacking	Minor	Slip, Fall,	hit/cut -	developed	LEADER: On a wet cold night, a backpacker was leaving tent to go to the	LEADER: None	Gear
21			Capsize	natural	spaces,	bathroom. B slipped and fell with face hitting a root. B took care of self and went	PARTICIPANT: Buddy system, use of a flashlight,	
				object	campgrou	back to sleeping bag. The next morning, I noticed that B had swelling and a small	PARTICIPANT: The gear assignments were inadequate. I was	
					nds, fields	cut under eye and questioned how that happened. B insisted that was ok and was	lucky enough that I brought all the gear instead of just what I	
						not in need of any help. I had the first aid leader check in with B and made sure	was assigned, and the group of 3 I ended up with, the others	
						someone was looking after B. B hiked the 5 miles to the trailhead without	didn't have functional gear assignments, so we were very	
						incident.	lucky that I had all of it and none of mine failed. Otherwise,	
						PPARTICIPANT: A participant in our group got up to go to the bathroom and	we would have not had a fuel source for warm food, which	
						slipped on a wet rock and hit face/ocular area. causing it to bleed. If P had gotten	was critical with the cold weather.	

	knocked out P would have been exposed to the stormy conditions until someone found P or P woke up. PARTICIPANT: One of the students fell on a slippery wet rock in the middle of the night. While the temperatures were above freezing, everyone was SO underprepared for cold / wet weather backpacking, if the weather had taken a turn for the worse, I feel like it was a near miss. What I hated most was that when I was bold enough to speak up, I was treated like I was being dramatic.		
Hit, Struck, natural object rock - talus, bould scree	Our party of 7 had obtained the Governor's Ridge/Barrier Peak saddle and descended from the saddle 6,180 feet down to around 6,100 feet where we	Even though the trip was exploratory, I had done significant research on the route and had contacted a scramble leader who had done the trip in July 2020. In addition, one of the participants was a scramble leader who had made an attempt with a private party three weeks prior. Since P was familiar with the terrain and is a scramble leader, I let across the traverse with me as the sweep. Looking at the GPS track, the incident occurred on the same track as the July 2020 trip, however, in hindsight, a better route that would have avoided the scree fields could have been achieved about 100 feet lower than where we were at. This event appears to be an unfortunate movement of rocks that caused our scrambler to become unstable and lose his balance. A contributing factor was the heat of the day. There was an excessive heat warning for Puget Sound that was issued the day before our scramble. A review of weather reports indicated that the high temperature for Owyhigh Lake and the ridge itself would be about 85 degrees between 2 and 5pm. We did prepare such as filling up water at the creek before Owyhigh Lake and we had sufficient water to treat our injured scrambler. But the heat may have been part of what caused our scrambler to have additional issues during medical attention. Due to the steepness of the west side of the ridge, a lot of energy was exerted getting to the saddle. I do not believe the weather forecast would have caused me to cancel the trip, but it is a contributing factor to the incident. In the future, I will make additional considerations of hot weather to trip planning. Our group processed the event at the parking lot. There were differences of opinion amongst the group of what led up to the incident. But, upon reflection, though we had discussion in town, at the trailhead, and the lake on our plan, I did not adequately communicate our plan to traverse across to the first gully. We had two scramblers who were even higher on the route between the first and second gully and I was in the back with a slo	Rockfall

Aug- 21	Sea Kayaking	Significant	Slip, Fall, Capsize	injury/ illness - self- inflicted, caused by movement	water - large bodies, fresh or salt	During a kayak roll class in Olalla Bay, 3.5 feet deep, no current to speak of, sunny, no wind, no waves, while working with instructor, participant P dislocated right shoulder. We attempted minimal self-relief with P trying to reduce it on own. When this did not work, we contacted 911 where P was transported to St. Anthony hospital ER in gig harbor, where P was treated. Another participant was given permission to move P boat and car, which we did to the ER parking lot and gave staff P keys. P was alert throughout. P texted later in the afternoon to let us know P shoulder was reduced and P was doing better.	opinion, the group agreed that the care of our patient was successful. We also discussed some areas in our first aid training that we can improve upon such as ensuring our First Aid kits are adequately supplied and that we all carry a copy of the WFA soap note on all of our trips Our SKOFA leader was informed of the injury immediately. When the problem could not be easily remedied, we contacted a paramedic for transport and medical treatment.	
Sep- 21	Scrambling	Near Miss	Hit, Struck, Cut	hit/cut - natural object	off-trail, cross- country	1.5 ft rock kicked loose by another scrambler about 80 yards up slope. Moving at significant velocity by the time it narrowly whizzed by me. No place for me to take cover, but I was able to dive the correct way at the last moment.	I wasn't watching the scrambler up slope. Perhaps scrambler should have recognized I was in fall line. Perhaps I should have told scrambler to hold up.	Rockfall
Sep- 21	Day Hiking	Significant	Slip, Fall, Capsize	injury/ illness - self- inflicted, caused by movement	Trail	LEADER: A hiker in the group while returning, slipped and fell, hit a rock and suffered cuts to skin over nose and lips with bleeding. Did not lose consciousness. I was able to render first aid, stopped the bleeding with light pressure, cleaned wounds and applied dressing. H was able to walk out also on own without any assistance. Eventually went to a local ER and got treated. I followed up with H later in the evening. H recovered without any further incident. PARTICIPANT: I did a face plant in the last mile of the hike and received excellent care and First Aid from our leader and a participant who also is a physician. And I must say all participants were helpful and made me feel safe. I was able to hike out and Leader made sure I was able to drive home. I followed Leader's instructions and sought further care at Overlake's ED that evening with OK results. I thank Leader and all the others for their expert First Aid and support all around.	LEADER: H seemed perfectly capable and was doing fine. It was likely due to some distraction on H part as H was taking pictures with phone and tripped. fortunately, my first aid kit had all the material I needed to handle this. I'm glad that I was prepared.	Trail nav
Sep- 21	Climbing	Near Miss	Hit, Struck, Cut		Ice - technical	While gearing up at the base of the North Face of Observation Rock, the climbing party noticed rock fall at the outskirts of the ice route. Because it was cloudy (and intermittent rain), visibility was poor, and we could see about 100 feet above us. Based on this, and the fact we had 3 teams of 2, we climbed with about 6 feet of space between parties. As a team started setting up on climbers left of the group, a rock, roughly the size of a baseball, struck a participant on the shoulder and bounced off their belayer. There were no injuries from this particular rock strike.	Members of the party had climbed the route a week prior and noted rock fall was present. There was a small zone where rocks seemed to be less prevalent, so we tried to stay in that zone. To avoid rock fall for future climbs, we may need to go on a colder day or on a day where there is better visibility. As a side note, the area of rock being exposed at the top is increasing. The North Face ice doesn't show itself until end of August to early September, based on the snow year. Even now, only the top two pitches were ice; the bottom two pitches were still snow. This route may be unclimbable as an alpine ice route in future years due to rock fall (even though the ice is present)	Rockfall
Oct- 21	Navigation	Minor	Slip, Fall, Capsize	injury/ illness - self- inflicted,	Off-trail, cross- country	I had a minor incident during the GPS navigation exercise. My partner and I took a pretty straight line to the waypoint and ended up in extremely overgrown and brushy terrain. I slipped a couple times on wet logs and once landed hard, bruising my left wrist.		Heybrook

				caused by movement		I didn't report it to my instructor, but my partner saw me fall and asked if I was okay. It didn't seem like a big deal, but towards the end of the day my wrist had more pain and started to swell. I iced it when I got home, but for a while I couldn't really use that hand. By the next day the swelling and pain improved significantly, and I wore a wrist brace all day. By today (day 2) it's getting back to normal just a bit tender with mild bruising. FYI, my partner slipped and fell once as well but didn't get injured. I'm in good shape and have done plenty of cross-country travel in the past on much sketchier terrain. But I was a bit distracted using my compass and checking my cell phone app while trying to get to the waypoint. I took the navigation course 10 years ago with the field trip near Heybrook Lookout, and I don't remember it being anywhere near this brushy of terrain.	this portion or shortening it or making it clearer that it was okay to find alternate routes. I would also suggest having instructor advise students on potential risk in rough terrain and suggest putting compass and cell phone away and instead focus on route-finding and safe use of hands & amp, footing rather than juggling a compass and GPS device. Thank you for your review.	
Oct- 21	Scrambling	Safety Concern	Logistics, equipment issues, party issues	party split	off-trail, cross- country	On a loop trip scrambling Mount Fremont lookout from Grand Park after Sunrise closed, we planned to descend the NW ridge after ascending the N ridge. Above tree line, steady ~ 20 mph winds and a few inches of intermittent snow made travel challenging. We discussed staying together on the descent before leaving the 7200' lookout at 2 p.m. Leader left last and was bringing up the rear and saw only 5 of the other 7 scramblers below. Presuming the other 2 had dropped down lower but would wait when at tree line, I proceeded to descend. Upon reaching the 5 at 6600', they informed me that the missing 2 had descended to climber's right, off our planned route, and were out of sight. We discussed various scenarios and actions. I initially had cell reception and tried to text the missing 2, but only 1 of the texts went through, not the one that outlined our plan, which was to descend to the trail and climb up the 400' on trail back to Grand Park to look for them, and if they were not there to return to cars and wait until 8 p.m. for them before notifying emergency response. 7 of 8 on our trip had emergency signaling devices, including the 2 missing scramblers, so we knew they could call for help if they needed it. To our relief, we heard their voices calling us from below when we got to about 5900'. They had used GPS and gotten back on the intended route and heard our voices. The trip proceeded without incident, though the delay led to the last 45' on trail being by headlamp, returning to cars at 7 p.m.	Reinforcing the intended route before leaving the lookout, including reviewing maps. When the group separated while waiting for the leader to catch up, those left behind could have requested the others wait. One reason this didn't happed was the persistent wind, which had led to one of the 2 who became separated previously relating to another party member they were quite cold. If this had been communicated, we could have assisted with more layers to keep P warm. Having an experienced party confident with GPS navigation likely prevented this from resulting in an unplanned bivy on a cold night. Having a large number of emergency signaling devices also provided an extra safety factor. We had a stove, sleeping bag, and bivy sack as a group, but only the bivy sack was with the missing pair.	Party Separation