

School for International Expedition Training

1338 S. Foothill Dr. STE 177
Salt Lake City UT 84108
760-920-3464
info@expeditiontraining.org



Training Program for SIET

Why do we recommend training? In the mountains, your body is your tool. On our courses, we find that the more fit our students, the greater their success and enjoyment; they are able to take advantage of learning and leadership opportunities and focus on curriculum and peak ascents. In the mountains, fitness and endurance are also part of our risk management strategy, enabling us to move quickly through areas with overhead hazard or conduct a rescue after an eight-hour summit bid. Additionally, overall fitness decreases injuries, enabling students to physically participate fully on course; this is key, as our curriculum is primarily experiential.

Goals and Objectives

- Easily hike up to eight miles with 4,000' elevation gain with a 15 lb. day pack
- Easily hike up two miles with 2,500' elevation gain with a 55-65 lb. pack
 - The following day: ascend and descend 4,000' in mixed snow and ice, pack up camp, and descend additional 2,500' to base camp
- Sustain multiple days in a row of hiking, climbing ice (60-80°) and rock (5.0-5.8), and glacier travel
 - At elevations of 10,000' to 20,000'
 - In adverse and unpredictable weather conditions
 - Highs in the 70's°F
 - Lows in the -20's°F plus wind chill
 - High winds
 - White-out conditions
 - Rain, snow, and sleet
- Have the physical and mental energy to accomplish the above and a sufficient reserve of energy to then set up camp, cook dinner, and prep for the next days' objective

If you are in peak shape on an expedition, you will be able to participate fully and be positive, patient, and able to take the initiative after a long, physically challenging day. Training will teach you how much you can push yourself, how long it takes you to physically recover, and how you respond to stress.

In order to be train (before an expedition) and participate (on an expedition) in a sustainable fashion, it is imperative that you listen to your body and take care of it, both physically and mentally.

The “Zones”

Zone 1: Endurance

Why: You will learn more if you’re not physically struggling every time we travel and/or attempt a peak ascent.

What: low-power cardio (you should be able to maintain a conversation)

- Running
- Hiking
- Nordic/cross country/skate skiing
- Ski touring
- Swimming
- Rowing
- Bicycling (mountain or road)

Suggestions:

- Train in the terrain in which you aim to perform, as much as possible:
 - Steep hills (up, down, and side-hilling)
 - Single track trails
 - On snow
 - Scrambling in boulder fields
- Eventually, do this in the boots you plan to wear
- Wear a pack with incrementally increased weight (see training plan)

Zone 2: Power endurance

Why: On big alpine routes, there are several areas in which we need to move with maximum efficiency; in areas with overhead hazard (rock fall, seracs, etc.), it is critical to minimize our time.

What: 15-25-minute high output intervals

- Increase the intensity of a Zone 1 exercise for recommended timeframe
OR
- The following activities (or some combination of) for recommended timeframe:
 - Wind sprints
 - Uphill hike (or run) “sprints”
 - Walk or run up hill, walk down, walk or run back up, walk down, etc.
 - Stair or box-step “sprints”
 - Walk or run up stairs
 - High intensity box steps
 - Cross fit-style high intensity workout with rotating exercises
 - Split jumps, burpees, squats, lunges, push-ups, pull-ups, 50-m dashes, sprint on rowing or bicycle machine, box steps or jumps, etc.

Suggestions:

- Start with 15-min sessions and gradually increase intensity, sets, and repetitions (see plan details)
- Avoid injury by seeking out a trainer to make sure you are performing exercises with good form
- If you are new to specific exercises, pay special attention to how your body responds
- Ease into this and don't overdo it by going Rambo on your first week!

Zone 3: Strength and Balance Training, Stretching and Release Work

Why: Avoid injury by strengthening antagonist muscle groups and the core, and stretching and releasing tight muscles. This is in addition to listening to your body and avoiding doing too much too soon and with poor form.

What: antagonist-specific strengthening, core strengthening, stretching, and release work

- Yoga
- Pilates
- Other strengthening exercises:
 - Forearm planks, push-up position planks, side planks
 - Side dips
 - Crunches
 - Bird dog (quadruped and push-up position)
 - Windshield wipers
 - Back extension (cobra, prone swimming, up-dog)
 - Push-ups and pull-ups
 - Weights
 - Resistance work with therabands
- Stretching
 - Stretch major muscle groups
 - Quads, IT bands, hamstrings, calves
 - Hip flexors, extensors, and rotators
 - Low back, lats/side torso
 - Upper traps, pecs, triceps
 - After climbing: forearms and hands/fingers
- Release work
 - Massage therapy
 - With a foam roller:
 - Release quads, IT bands, calves, back, lats
 - With a pinky (similar to a lacrosse) ball, "MELT" balls or tennis ball (less optimal):
 - release feet, back extensors, pecs, upper traps, and gluts

Suggestions:

- Make stretching and release work—even just five minutes—a habit after every workout
- Strengthening the core and antagonist muscles is a critical piece of the training "puzzle."
 - Consider hiring a professional trainer for one or two sessions, or once a month
 - Take a yoga, pilates, or weight-lifting class once a month and ask the instructor to give you feedback on your form

MONTH ONE

This is where training becomes habit. You are laying the foundation for five more months of training, plus an expedition. Be creative with your workouts; explore new trails and summit all the peaks in your home range. Recruit work-out buddies. Check out classes at the local gym.

AT A GLANCE

Days per week: 4

Emphasis: aerobic*, endurance, and strengthening foundations

	Sessions/week	min/session	hours/week
Zone 1	3	30	1.5
Zone 2	1	15	0.25
Zone 3 - Strengthening	2	30	1
Zone 3 – Stretch and Release	4	5-10	0.25-1

*If you are not a runner, now is not necessarily the time to start. See page 2 for non-running aerobic Zone 1 options.

IN DETAIL

Zone 1

Objective: Keep heart rate 30 bpm above resting HR for entire 30 min

- See **Zone 1** under *Definitions* (page 2) for full list of activities

Zone 2

Objective: High intensity 15-min work out. Avoid going Rambo on this, especially the first six weeks!

- See **Zone 2** under *Definitions* (page 2) for details/activities

Zone 3

Strengthening

- Focus on arms, shoulders, back, and abs
 - If you are swimming or rowing as your primary Zone 1 exercise, then include leg strengthening
- Strengthen antagonists (see **Zone 3** under *Definitions* (page 2-3))

Stretching and Release Work

- Stretch major muscle groups
- Release muscles with foam roller and pinky ball

Notes

- Warm up before every aerobic or strengthening workout! Some warm ups include:
 - Walk briskly for 5 minutes
 - Climb several easy boulder problems that are below the grade at which you climb comfortably
 - Bike, ski, run, row, or swim slowly for 5 minutes
- Drink water before, during, and after your workout
- Refuel every hour
- Eat fresh vegetables and fruits, whole grains, proteins, and in general, avoid processed foods

MONTH TWO

Maintain the prior month's routine. Build the foundations of expedition-specific training.

AT A GLANCE

Days per week: 5

Emphasis: expedition-specific foundation

	sessions/week	min/session	hours/week
Zone 1	4	30 (see details below)	2
Zone 2	2	15	0.5
Zone 3 - Strengthening	2	30	1
Zone 3 – Stretch and Release	5	5-10	0.25-1

IN DETAIL

Zone 1

Objective: Keep heart rate 30-40 bpm above resting HR for entire 30 min

- One Zone 1 workout per week should be a hill/stair climb with weight progression below
 - Ideally, utilize a hill or set of stairs that allows you to move “up” continuously for 30 min
 - Carry a backpack with weight
 - Week 1: 5 lbs, 20
 - Week 2: 10 lbs, 25 min
 - Week 3: 15 lbs, 30 min
 - Week 4: 20 lbs, 30 min

Zone 2

Objective: High intensity 15-min work out. Continue to avoid going Rambo on this.

- In general: increase the intensity of whatever exercise you are performing for 15 min

Zone 3

Strengthening

Start increasing weight; maintain same number of repetitions

- Focus on arms, shoulders, back, and abs
 - If you are swimming or rowing as your primary Zone 1 exercise, then include leg strengthening

Stretching and Release Work

- Stretch major muscle groups
- Release muscles with foam roller and pinky ball

MONTH THREE

Continue building on the foundations of expedition-specific training, with an emphasis on endurance.

AT A GLANCE

Days per week: 5

Emphasis: expedition-specific and endurance

	sessions/week	min/session	hours/week
Zone 1	3	45 (see details below)	2.25
Zone 1+	1	3-5 hrs	3-5 hrs
Zone 2	2	20	0.6
Zone 3 - Strengthening	3	30	1.5
Zone 3 – Stretch and Release	5	5-10	0.25-1

IN DETAIL

Zone 1

Objective: Keep heart rate 30-40 bpm above resting HR for entire 45 min

- Two of your Zone 1 workouts per week should be a hill/stair climb with this progression:
 - Carry a backpack with weight
 - Week 1: 20 lbs, 35 min
 - Week 2: 25 lbs, 40 min
 - Week 3: 25 lbs, 45 min
 - Week 4: 30 lbs, 45 min

Zone 1+

Objective: Low-intensity endurance

- Go out for a long(er) day:
 - Multi-pitch climbing (rock or ice)
 - Hiking
 - Ski touring
 - Cross country/Nordic/skate skiing
 - Mountain biking

Zone 2

Objective: High intensity 20-min work out. Continue to avoid going Rambo on this.

Zone 3

Strengthening

Continue increasing weight; maintain same number of repetitions

Stretching and Release Work

- Stretch major muscle groups
- Release muscles with foam roller and pinky ball

MONTH FOUR

Stay motivated. Watch cool videos on YouTube. Read books on mountaineering. Enlist friends. Bag some peaks. Explore new trails. Make awesome work-out music mixes.

AT A GLANCE

Days per week: 5

Emphasis: mental endurance

	sessions/week	min/session	hours/week
Zone 1	3	50 (see details below)	2.5
Zone 1+	1	4-6 hrs	4-6 hrs
Zone 2	2	20	0.6
Zone 3 - Strengthening	3	30	1.5
Zone 3 – Stretch and Release	5	5-10	0.25-1

IN DETAIL

Zone 1

Objective: Keep heart rate 30-40 bpm above resting HR for entire 50 min

- Two Zone 1 workouts per week should be a hill/stair climb with progression:
 - Carry a backpack with weight
 - Week 1: 30 lbs, 45 min
 - Week 2: 35 lbs, 45 min
 - Week 3: 35 lbs, 50 min
 - Week 4: 40 lbs, 50 min
- Incorporate a “push”/extra mile into one Zone 1 workout/week by adding, for example:
 - Extra 5-10 minutes of a hill climb
 - Extra lap to your run
 - Some other kind of extra effort to the end of your workout

Zone 1+

Objective: Low-intensity endurance

- Go out for a long(er) day: four hours at minimum, six hours maximum

Zone 2

Objective: High intensity 20-min work out

Zone 3

Strengthening

Increasing weight; maintain same number of repetitions

Stretching and Release Work

- Stretch major muscle groups
- Release muscles with foam roller and pinky ball

Hot Tips

Start testing your gear:

- Boots, sleeping bag, layering systems, backpack, sleeping pad, ice tools, crampons, etc.
- Make sure you have the right fit
- Try out new systems.

MONTH FIVE

This is where self-care—and your health in general—becomes paramount. Ensure that you are getting adequate sleep, eating healthily, drinking sufficient amounts of water, and stretching and releasing muscles. Go get a massage. Soak in a hot tub.

AT A GLANCE

Days per week: 5

Emphasis: staying healthy, maintaining routines

	sessions/week	min/session	hours/week
Zone 1	3	60 (see details below)	3
Zone 1	1	75	1.25
Zone 1+	1	5-7 hrs	5-7 hrs
Zone 2	2	20	0.6
Zone 3 - Strengthening	3	30	1.5
Zone 3 – Stretch and Release	5	5-10	0.25-1

IN DETAIL

Zone 1

Objective: Keep heart rate 30-40 bpm above resting HR for entire 60-75 min

- If you are swimming or rowing for your Zone 1 workouts, start transitioning to running, hiking, or mountain biking (leg-dominant exercises)
- Two Zone 1 workouts per week should be hill/stair climbs
 - Carry a backpack with weight
 - Wear your boots for two to four hill/stair climbs this month
 - Week 1: 40 lbs, 50 min
 - Week 2: 45 lbs, 50 min
 - Week 3: 45 lbs, 55 min
 - Week 4: 50 lbs, 55 min
- Incorporate a “push”/extra mile into one Zone 1 workout/week
 - Add an extra 5-10 minutes of a hill climb, and extra lap to your run, or some other kind of extra effort to the end of your workout

Zone 1+

Objective: Low-intensity endurance

- Go out for a long(er) day: five hours at minimum, seven hours maximum

Zone 2

Objective: High intensity 20-min work out.

Zone 3

Strengthening

Same amount of reps but with 40% less weight and with focus on doing reps quickly

Stretching and Release Work

- Stretch major muscle groups
- Release muscles with foam roller and pinky ball

Hot Tips:

Get out camping in order to test your gear and systems in the field. If you do an overnight trip, count this as two Zone 1 workouts for the week.

MONTH SIX

Stay on top of your self-care! Get adequate sleep, eat well, drink sufficient amounts of water, and stretch and release muscle tissue. Get another massage.

AT A GLANCE

Days per week: 5-6

Emphasis: Last push! Pay attention to your body, nutrition, hydration, and sleep.

	sessions/week	min/session	hours/week
Zone 1	3	65 (see details below)	3.25
Zone 1	1-2 (see details below)	90	1.5
Zone 1+	2	6-9 hrs	12-18 hrs
Zone 2	2	25	0.8
Zone 3 - Strengthening	3	30	1.5
Zone 3 – Stretch and Release	6	10-15	1-1.5

IN DETAIL

Zone 1

Objective: Keep heart rate 30-40 bpm above resting HR for entire 60-90 min

- Two Zone 1 workouts per week should be hill/stair climbs
 - Carry a backpack with weight
 - Wearing your boots for one hill/stair climb per week
 - Week 1: 40 lbs, 55 min
 - Week 2: 45 lbs, 55 min
 - Week 3: 50 lbs, 60 min
 - Week 4: 55 lbs, 60 min
- Incorporate a “push”/extra mile into two Zone 1 workouts per week
 - Add an extra 5-10 minutes of a hill climb, and extra lap to your run, or some other kind of extra effort to the end of your workout

Zone 1+

Objective: Low-intensity endurance

- Twice this month, go out for two back-to-back long days, each a minimum of six hours, maximum of nine hours

Zone 2

Objective: High intensity 25-min work out.

Zone 3

Strengthening

Increasing number of reps (AVOID increasing weight)

Stretching and Release Work

- Stretch major muscle groups
- Release muscles with foam roller and pinky ball

Hot Tips

Dial out and perfect your systems. Use your gear. Break it in. Make sure you're familiar with it. On your Zone 1+ days, use the gear and backpack you intend to use on course.

Weekly Schedule Example and Glossary coming SOON!