

OUTLINE ITINERARY



Overview/Summary:

Day:	0	Program Intro, meet and greet, team breakout, gear shakeout
Days:	1 - 2	Technical Ice Climbing Movement, Ice Anchors, Rescue Systems
Days:	3 - 4	Backcountry Ski Touring Level 1
Days:	5 - 7	Level 1 Avalanche Course & Companion Rescue
Days:	8 - 10	Backcountry Ski Touring Level 2, Weapons/Ski Biathlon, Night Ops

The following list is not meant to be exhaustive in terms of what can be covered in the 10 day Cold Weather & Technical Mountain Training Module. The curriculum and amount of time spent can be tailored to the teams preferred outcomes and objectives.

Days 1 – 2 Technical Ice Climbing Skill Progression

Location(s): City of Ouray, Ouray Ice Park, Ouray Backcountry Ice Venues

1. Technical Skills | Ice Climbing | Rescue

- a. Knot classifications (6.3.1)
- b. Tie knots (6.3.2)
- c. Perform Rope Management (6.3.3)
- d. Perform Mountain Walking Techniques (6.3.4)
- e. Perform Balance Climbing Techniques (6.3.5)
- f. Select Climbing Routes (6.3.6)
- g. Care for Climbing Equipment (6.3.7)
- h. Use Belay Systems (6.3.8)
- i. Use Climbing Communications (6.3.9)
- j. Perform Rope Ascent Using
 1. Friction Knots (6.3.10.1)
 2. Ascension Devices (6.3.10.2)
- k. Perform Lead Protection Placement
 1. Aided (6.3.11.1)
 2. Unaided (6.3.11.2)
 3. Construct Anchors (6.4)
- l. Rappel Using
 1. Standard & Non-Standard Techniques (6.5.1)
 2. Knot Bypass Procedures (6.5.2)
 3. Retrievable Rappel System (6.5.3)



m. Snow & Ice Climbing

1. Perform Ice Axe Arrest (6.6.1)
2. Perform Cramponing (6.6.2)
3. Construct Snow & Ice Anchors (6.6.3)
4. Place Snow/Ice Protection (6.6.4)
 - i. Discussion of modern gear for climbing in alpine winter environment
 - ii. Ropework physics and principles
 - iii. Toproping ice to develop technique
 - iv. Terrain evaluation
 - v. Alpine Ice Movement and Leading Ice
 - vi. Team movement on ice
 - vii. Basic ice anchor introduction and belay considerations on ice
 - viii. Belay escapes
 - ix. Risk management approaches
 - x. Approaches to ice rescue including rescuing the leader and rescuing the second
 - xi. Lead climbing technique including single pitch and multi-pitch approaches
 - xii. Multi-pitch transitions
 - xiii. Bottom-up rescue and lead climbing strategies
 - xiv. Belay escapes and various plaquette transitions

Days 3 - 4 Backcountry Ski Touring Level 1

Location: San Juan Mountains, Red Mountain Pass.

On the morning of February 4 the team will transition to lodging at our high mountain cabin known as the Powerline Red Mountain Yurts. Individual per diem lodging and food charges will apply.

1. Backcountry Snow & On Snow Travel
 - a. Fundamentals of snow travel (6.7.1)
 - b. Skiing Techniques (6.7.3)
 - i. Backcountry/Cross Country ski techniques
 - ii. Self arrest w/ski poles
 - iii. Uphill track setting
 - iv. AVA Turns & Kick Turns
 - v. Use of Climbing Sking, field care and repair
 - vi. Powder Skiing techniques
 - vii. Group management in ascent/descent
 - viii. Uphill and downhill transitions
 - ix. Braced sideslipping
2. Snow and Glacier Travel Movement Skill Development & Backcountry Shelter construction
 1. Snow and Glacier Travel
 - a. Snow/Glacier characteristics affecting travel (6.7.2)
 - b. Construct Snow Anchors (6.6.3)



- c. Place Snow Anchors (6.6.4)
- d. Crevasse Rescue Procedures (6.7.5)
 - i. Rope techniques for glaciated terrain
 - ii. Anchoring systems for crevasse rescue
 - iii. Escaping the system
 - iv. 2:1, 3:1, 5:1, & 6:1 Mechanical Advantage Hauling Systems
 - v. Team Extrication Methods
- 2. Snow Shelters
 - a. Selecting Alpine Bivouac Spots
 - b. Snow shelter construction
 - c. Alternative shelter options

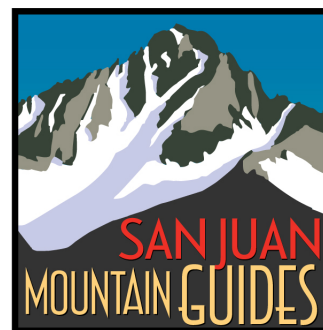
Days 5 – 7 Avalanche Hazard & Rescue – Level 1 Avalanche Certification

Location(s): Red Mountain Pass. Overnight lodging: Powerline Red Mountain Yurts.

- 1. Avalanche Hazard and Rescue
 - a. Avalanche Causes (6.8.1)
 - b. Avalanche Hazard Prediction Methods (6.8.2)
 - c. Avalanche Survival Actions (6.8.3)
 - d. Avalanche Rescue Equipment Requirements (6.8.4)
 - e. Perform Avalanche Rescue Scenarios (6.8.5)
 - f. Perform Avalanche Hazard Crossing (6.8.6)
- i. Introduction to avalanche phenomena and decision making in avalanche terrain
- ii. Understanding predictable snowpack variations by geography – an international approach
- iii. Identify avalanche causes
- iv. Snowpack evaluation methods
- v. Travel techniques in avalanche terrain
- vi. Protocol based routefinding in avalanche terrain
- vii. Avalanche companion rescue
- viii. Multiple victim avalanche rescue
- ix. Deep burial avalanche rescue
- x. Avalanche survival techniques
- xi. Avalanche hazard crossing
- xii. Standard and non-standard snow instability analysis

**Days 8 - 10 Backcountry Ski Touring Level 2, Weapons/Ski
Biathlon, Night Ops**

Location(s): Red Mountain Pass. Overnight lodging: Powerline Red
Mountain Yurts.



1. Backcountry Snow & On Snow Travel

- a. Fundamentals of snow travel (6.7.1) – continued
- b. Skiing Techniques (6.7.3) – continued (off piste skiing/advanced survival skiing)
- c. Continuation of Following Skills -
 - i. Backcountry/Cross Country ski techniques
 - ii. Self arrest w/ski poles
 - iii. Uphill track setting
 - iv. AVA Turns & Kick Turns
 - v. Use of Climbing Sking, field care and repair
 - vi. Powder Skiing techniques
 - vii. Group management in ascent/descent
 - viii. Uphill and downhill transitions
- d. Route and time planning in an Alpine Environment
 - i. The Munter Method
 - ii. Map & Navigation Assets Review
 - iii. Alpine Rescue Techniques
 - iv. Whiteout Navigation Planning

2. Ski Biathlon - Short to Medium Range Point Target Engagement with Weaponry

- a. Mountain/Alpine Carrying & Concealment
- b. Cold weather and altitude considerations
- c. Reflection, Coloration considerations
- d. Unobserved movement in snow/alpine terrain
- e. Considerations for Night Ops NVG movements