

NZOIA™ Alpine Instructor Level 2 Syllabus

SCOPE

The scope of this award is:

1. For people INSTRUCTING, organising and leading others on multi-day trips in non-glaciated mountains, on technical and non-technical ground, where snow is almost always encountered, and a rope and crampons may often be required to improve safety.
2. For people TEACHING lead climbing in the mountains.
3. For people INSTRUCTING other mountain instructors and outdoor leaders.

1. SKILL AND EXPERIENCE PRE-REQUISITES:

- 1.1.1 The NZOIA Alpine 2 Instructor will have at least 50 days personal experience in tramping and climbing in the mountains. With at least 20 days in snow, 10 nights in snow shelters or tents away from huts, and 10 nights in huts. (Above those required for Alpine 1).
- 1.1.2 Additional experience of at least 20 days as instructor/leader or co-instructor/leader in alpine snow, including at least 5 nights in huts/snow shelters/tents. (Additional to those required for Alpine 1).
- 1.1.3 The NZOIA Alpine 2 Instructor will be conversant with mountaineering publications and be able to demonstrate a good knowledge of the bush environment and emergency procedures.
- 1.1.4 The NZOIA Alpine 2 Instructor will have passed an Avalanche 1 course.
- 1.1.5 The NZOIA Alpine 2 Instructor will hold a current First Aid certificate (Outdoor First Aid recommended) issued within the last two years.

These are the minimum requirements, extra days are advisable so that a broad range of weather and terrain variables are experienced.

ASSESSED TOPICS:

All of these should be performed as if acting in an instructor role, role modelling techniques etc. to a group of students.

2. ENVIRONMENTAL CARE

Element - Enhance personal and group knowledge of the alpine environment

- 2.1.1 Demonstrate and explain the principles of environmental care (Environmental Care Code DOC 1991).
- 2.1.2 Demonstrate a basic knowledge of the flora, fauna, geology and history of at least two alpine areas of New Zealand.
- 2.1.3 Describe the history and purpose of the major organisations involved in the bush and mountains of New Zealand.
- 2.1.4 Describe the significance of various features to the local iwi in an alpine area.
- 2.1.5 Describe some of the issues surrounding ownership, access and conservation in the mountains of New Zealand.

3. CLOTHING AND EQUIPMENT

Element - Plan and prepare equipment for alpine trips.

- 3.1.1 Demonstrate a knowledge of equipment commonly used in New Zealand for alpine trips.
- 3.1.2 Demonstrate the use of layered clothing for different weather conditions.
- 3.1.3 Demonstrate how to pack personal and group gear for an alpine trip.

4. ALPINE SKILLS

Element - Move safely and confidently with a group in the alpine environment and demonstrate the ability to adjust plans when environment dictates. Moving with a group

- 4.1.1 Demonstrate walking and moving skills varied alpine terrain
- 4.1.2 Demonstrate the use of an ice axe for walking, step cutting and self arrest,.
- 4.1.3 Perform a self arrest from several positions.
- 4.1.4 Select an alpine route, identify the potential risks and disclose them to the group.
- 4.1.5 Co-ordinate a group on snow, icy terrain, rock scrambling, tussock, scree, and steep tracks.
- 4.1.6 Select pace, resting stops and organisation for a group to achieve an objective

4.2 Alpine Navigation

- 4.2.1 Demonstrate knowledge and use of maps.
- 4.2.2 Describe routes, estimate distance, and time for a trip from a map (to +/- 10%).
- 4.2.3 Locate a point on a map using a 6-figure grid reference plus map number.
- 4.2.4 Determine present position on a map using features with visibility greater than one kilometre.
- 4.2.5 Navigate across alpine terrain using a map and features.
- 4.2.6 Orientate a map to ground using features only and a compass only .
- 4.2.7 Travel using a compass bearing taken from a map.
- 4.2.8 Find the bearing of an alpine feature using a compass.
- 4.2.9 Perform a resection to determine position on a line feature.
- 4.2.10 Demonstrate the ability to navigate in a whiteout using a map, compass and altimeter (if available).
- 4.2.11 Describe the use of an altimeter to find the elevation of a point.

4.3 Alpine Weather

- 4.3.1 Describe the weather patterns as they affect New Zealand.
- 4.3.2 Demonstrate the ability to anticipate weather conditions in the mountains from changes in clouds, temperature, wind direction and react accordingly.
- 4.3.3 From a synoptic chart make general interpretations as to current wind direction, wind speed, temperature, precipitation and make a 24 hour forecast.
- 4.3.4 Describe the relationship between barometric pressure and weather changes.

4.4 Alpine Campcraft

- 4.4.1 Demonstrate the advantages/disadvantages of a variety of snow shelters including emergency shelters.
- 4.4.2 Demonstrate alpine hut etiquette and organisation.
- 4.4.3 Describe the advantages/disadvantages various stove types for alpine cooking.
- 4.4.4 Describe the precautions needed when using stoves in confined spaces.
- 4.4.5 Demonstrate food, drink and fuel requirements for an alpine trip.
- 4.4.6 Demonstrate hygienic methods of food and drink preparation.
- 4.4.7 Describe/demonstrate waste and toilet regimes for alpine sites.

4.5 Water Safety

- 4.5.1 Describe when and when not to cross a fast down cutting river.
- 4.5.2 Demonstrate the techniques used when travelling in a stream/river.
- 4.5.3 Identify the hazards, methods and safest crossing points of a river.
- 4.5.4 Demonstrate a safe individual method, mutual support and recovery methods for a river crossing.

4.6 Alpine Trip Planning

- 4.6.1 Produce an overall plan and an emergency plan for an alpine trip.
- 4.6.2 Identify aims, objectives and define the purpose of a trip.

4.7 Alpine Technical Skills

- 4.7.1 Demonstrate the following:

Knots

Fig 8
Italian hitch
Double Fishermans
Manufactured
Vertical Snowstake
Snow Pig
T-slot
Snow/ice bollard
Alpine rock
Ice Screws
Italian hitch
Belay devices
Standing ice axe (Austrian or Stomper)
Waist belay
Shoulder belay
Direct belay

Clove hitch
Prussiks
Tape
Improvised

Harness types

Anchor types

Belaying Methods

Cramponing

- 4.7.2 Setup an anchor system that can share the load among 2 – 3 points and is failsafe for the job it has to do.
- 4.7.3 Demonstrate lead climbing on snow to 60° and on alpine rock to grade 10 as part of teaching lead climbing.
- 4.7.4 Demonstrate safe lowering of students.
- 4.7.5 Abseil using self protection.
- 4.7.6 Demonstrate escaping from a belay system and accessing an injured climber.
- 4.7.7 Perform ridge travel to show rope management, moving together and the safeguarding of students by short roping.
- 4.7.8 Demonstrate how to rope up for glacier travel.
- 4.7.9 Demonstrate how to prussik up a rope.
- 4.7.10 Demonstrate an assisted hoist.

4.8 Avalanche awareness

- 4.8.1 Describe types of avalanches common in NZ
- 4.8.2 Describe the factors contributing to avalanches in NZ
- 4.8.3 Obtain relevant avalanche hazard forecasts for a trip.
- 4.8.4 Demonstrate an understanding of layering within the snowpack and identify weak layers.
- 4.8.5 Make route selections that minimise exposure to avalanches.
- 4.8.6 Describe the steps necessary to perform an avalanche rescue.
- 4.8.7 Describe techniques for improving the chances of personal survival in an avalanche.
- 4.8.8 Demonstrate the use of avalanche transceivers and locate a buried transceiver in two minutes in 20 meters x 20 metres of debris.

LEADERSHIP AND INSTRUCTING

Element - Provide an enjoyable and stimulating learning experience for a group.

4.9 Leadership

- 4.9.1 Demonstrate an awareness and sensitivity to the cultural/special needs of a group.
- 4.9.2 Demonstrate an effective group briefing and debriefing.
- 4.9.3 Demonstrate leadership styles and listening skills that are relevant to a groups needs.
- 4.9.4 Demonstrate the ability to safeguard a group in steep terrain using the following methods:
route selection, spotting, buddy support, confidence roping, hand lines and belaying.

4.10 Instruction Techniques

- 4.10.1 Select and prepare a venue and equipment for a lesson
- 4.10.2 Present a lesson that includes an introduction, uses appropriate voice, language, body language, teaching/visual aids, demonstrations and evaluation of learning.
- 4.10.3 Demonstrate a wide knowledge of a topic
- 4.10.4 Facilitate a group discussion using that
 - creates a participative open, tolerant atmosphere
 - manages unacceptable behaviour effectively
 - deals with expressed fears and anxieties effectively
 - encourages enthusiasm, interest and learning.

5. RISK AND CRISIS MANAGEMENT

Element - Enhance personal and group safety in an alpine environment.

- 5.1.1 Demonstrate the ability to adjust plans when the environment dictates.
- 5.1.2 Demonstrate the concepts and principles of managing risk during a trip.
- 5.1.3 Describe procedures used in the event of an accident, illness and/or party member becoming lost.
- 5.1.4 Describe how the NZ SAR system works.
- 5.1.5 Demonstrate with the contents of an instructor's pack that you have the gear and knowledge to construct an emergency shelter and/or an emergency stretcher.
- 5.1.6 Describe the prevention and remedies for - snowblindness, frostbite, dehydration, hypothermia, hyperthermia, sunburn, allergic reaction, blisters.

6. TERRAIN GUIDELINES

- 6.1.1 A NZOIA Alpine 2 Instructor should only be working:
 - On non-glaciated terrain, with the exception of Mt Ruapehu.
 - On moderate technical terrain.
 - In low avalanche hazard conditions.