Avalanche Operations Level 1

canadianavalancheassociation

When reading the following course goals and learning outcomes, assume that each goal and outcome begins with the following phrase:

By the end of the course/lesson, learners will be able to:

Course Goal	Grid Ref.	Related Learning Outcomes				
		1	2	3	4	5
Describe the formation and release of snow avalanches	A	Describe the snowpack properties necessary for the formation of avalanches	Describe avalanche release types, avalanche problem types, and their significance	Describe the motion characteristics of avalanches	Summarize the failure of snow leading to avalanche release	
Describe the factors that contribute to avalanche hazard and risk	B	Describe the effect of exposure and vulnerability of people and property in avalanche terrain	Describe methods to manage exposure and vulnerability to avalanche hazards	Describe the components of hazard and risk		
Identify, classify and analyze avalanche terrain	C	Compare and contrast the components of an avalanche path and the physical characteristics of each component	Analyze avalanche terrain in the field, on topographic maps, photos and computer-based terrain imagery products	Use exposure classification systems to categorize both routes and terrain	Identify and select routes and sample sites which optimize safety and data quality	
Identify and describe the properties of mountain snowpack	D	Describe the factors that contribute to the evolution of the snowpack over the season	Describe the measurable properties of the snowpack	Describe how weak layers are formed and the significance of Persistent Weak Layers	Describe the mechanisms that contribute to spatial variability	Identify avalanche problem type from observed snowpack data.
Observe and record weather data	E	Observe and record study plot weather data	Observe and record field weather data	Observe and record telemetry data	Explain fundamental weather concepts	Obtain a weather forecast using information technology
Observe and record snowpack data	F	Observe and record snowpack properties	Demonstrate and record standardized mechanical snowpack tests	Select appropriate fracture character category in snowpack observations	Plot manual snow profiles	Demonstrate use of assessment / decision aids in snow profile analysis
Observe and record avalanche occurrence data	G	Apply the destructive size rating system to avalanches	Apply release and problem types to describe avalanches	Observe and record avalanche occurrence observations		
Describe and apply the process used in avalanche hazard assessment	H	Describe the key factors used in avalanche hazard assessment	Describe how snowpack and weather data are ranked according to its predictive validity	Apply the standardized CAA process to hazard assessment	Apply the Danger Scale and Hazard Ratings to a hazard evaluation	Communicate hazard information in the workplace

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Apply risk treatment methods	I	Describe risk treatment strategies	Apply pre-trip preparation for travel in avalanche terrain	Apply situational awareness and appropriate risk mitigation concepts	Explain how human behaviours influence decision making	Reflect on the role of personal wellness as it relates to decision making
Apply standard safety procedures within a team environment	J	Demonstrate proficiency with avalanche search and rescue skills and techniques	Identify key points of an Avalanche Safety Plan	Describe the application of an Emergency Response Plan	Describe a safety briefing	Participate in a daily risk review
Describe the scope of practice for Avalanche Operations Level 1 Graduates	K	Reflect on the role of mentorship in avalanche work	Explain the role of continuing professional development	Explain the limitations of the scope of practice for Avalanche Operations Level 1 Graduates	Describe the importance of personal career record keeping	