



Introduction to Snow Avalanche Mapping Course

When reading the following course goals and learning objectives, assume that each goal and objective begins with the following phrase:
By the end of the course/lesson, learners will be able to . . .

Course Goals	Related Learning Objectives					
<i>Use air photos in snow avalanche mapping</i>	Identify relevant air photos for particular projects	Obtain air photos from suppliers	Evaluate the differences in air photo scales	Use standard and pocket stereoscopes correctly	Calculate specific scales from air photos of various general scales	Recognize all types of avalanche terrain from air photos
	Demonstrate correct layout of air photos using principle points, etc.	Identify forest cover types & geographic terrain features	Measure heights & distances from air photos using the parallax concept			
<i>Use topographic maps in snow avalanche mapping</i>	Identify relevant topographic maps for particular projects	Obtain maps from suppliers	Evaluate the differences in topographic map scales	Calculate slopes from topographic maps	Identify avalanche terrain on topographic maps	
<i>Request computer mapping for snow avalanche mapping work when needed</i>	Identify relevant computer mapping options	Identify computer file types & conversion requirements	Obtain computer mapping from suppliers	Explain the differences in computer mapping products		

<i>Conduct relevant field work</i> (Six students per instructor)	Measure slope angles	Survey avalanche slopes	Identify vegetation species	Estimate ages of different tree species	Measure tree ages using a tree borer	Interpret forest growth and vegetation damage, distinguishing avalanche damage from other causes
<i>Analyze climate data</i>	Identify relevant climate data	State weather & snowpack conditions that produce major avalanches	Obtain climate data from suppliers	Analyze climate (snowpack) data		
<i>Analyze snow avalanche occurrence data</i>	Identify relevant snow avalanche occurrence data	Obtain snow avalanche occurrence data	Analyze snow avalanche occurrence data			
<i>Estimate avalanche frequencies</i>	Analyze climate (snowpack) data	Analyze snow avalanche occurrence data	Compile climate, avalanche occurrence and field data	Estimate avalanche frequencies		
<i>Present data</i>	Create strip maps	Create oblique photos	Graph slope survey results, including slope profiles and slope cross-sections	Map relevant vegetation information	Draft reports which accurately present relevant field & air photo data to industry standard	