

Resource Transportation Avalanche Management (RTAM)

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 Goals | | Related Learning Outcomes | | | | |
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| | | 1 | 2 | 3 | 4 | 5 |
| A | State the formation and release of avalanches | State the snowpack properties necessary for the formation of avalanches | Describe the characteristics of avalanches | List the different snow failure and avalanche problem types | Describe the motion characteristics | Describe the steps of snow avalanche release |
| B | Identify avalanche terrain | Identify and describe avalanche paths | Describe avalanche terrain | Apply a classification scheme to avalanche terrain in an industrial setting | Identify safe and unsafe areas in avalanche terrain | |
| C | Describe the properties of the mountain snowpack | Describe the formation of the mountain snowpack | Describe snowpack metamorphism | Describe the significance of weak layers in the snowpack | Describe how the snowpack varies over terrain | Describe how snowpack varies over seasons |
| D | Describe weather data, its collection and recording | Describe standard weather observation for a study plot and telemetry | Observe and record field weather data | Explain basic weather concepts | Obtain a weather forecast | State critical weather factors that elevate avalanche hazard. |
| E | Observe and record avalanche occurrence data | Describe the standardized terminology used to observe and record avalanche occurrences | Apply the destructive rating system to avalanches | Observe and record avalanche occurrence data | | |
| F | Describe avalanche hazard | Describe the effect of avalanches in Canada | Define likelihood and consequences; frequency and magnitude | Identify the factors used to determine likelihood of avalanches | State how avalanche hazard ratings are used in industrial operations | |
| G | Describe avalanche risk | Describe risks of avalanches to people and property | Described exposure and vulnerability | Discuss the differences between avalanche hazard, avalanche danger, and avalanche risk. | | |

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| H | Describe risk treatment methods | State the main components of an avalanche safety plan (ASP) | Relate the ASP to personal safety: exposure, hazard information retrieval, communications | Explain what to do if caught in an avalanche, on foot or in a vehicle | Describe the mitigation measures for avalanche risk treatment | Explain how team performance factors influence decision-making |
| I | Participate in avalanche search and rescue | Apply an emergency response plan | Describe the preparation and maintenance of search and rescue equipment | Demonstrate effective professional rescue for simple rescue scenarios | Participate in an organized rescue practice | Describe key Incident Command System (ICS) roles in an organized avalanche rescue operation |
| J | Describe the scope of practice for RTAM graduates | | Discuss continuing professional development and training | Discuss roles and responsibilities of RTAM graduates | | |