

## Avalanche Operations Level 2 – Module 3

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                                  |                                                                       |                                                                                                                |                                                         |                                                                   |
|--------------|------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|
| <b>A.</b>    | <b>Collect &amp; evaluate weather data</b>                       | 1. Explain mountain weather phenomena                        | 2. Select useful observation sites                                    | 3. Collect appropriate weather data                                                                            | 4. Analyze weather data                                 | 5. Describe how local weather will influence the avalanche hazard |
| <b>B.</b>    | <b>Collect &amp; evaluate detailed snowpack data</b>             | 1. Assess snow cover distribution                            | 2. Select relevant observation sites                                  | 3. Collect & document snow pack data                                                                           | 4. Collect slope stability, shear & other test data     | 5. Analyze data collected                                         |
|              |                                                                  | 6. Describe and communicate snowpack structure data          | 7. Describe the differences and application of: ST,CT,RB,ECT,PST, DTT |                                                                                                                |                                                         |                                                                   |
| <b>C.</b>    | <b>Collect &amp; evaluate avalanche size &amp; activity data</b> | 1. Collect & record avalanche activity data                  | 2. Analyze avalanche occurrence data                                  | 3. Analyze the significance of infrequent and large avalanche activity patterns for specific pieces of terrain | 4. Identify evidence of infrequent and large avalanches |                                                                   |
| <b>D.</b>    | <b>Forecast avalanche hazard, levels, and trends</b>             | 1. Review & analyze pertinent weather, snow & avalanche data | 2. Determine current avalanche problems and hazard                    | 3. Discuss long term hazard trends and their impact on operations                                              | 4. Apply the terms avalanche risk, danger, and hazard   |                                                                   |

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| <b>E.</b> | <b>Evaluate terrain</b>                     | 1. Utilize terminology to describe characteristics of avalanche terrain                           | 2. Characterize avalanche terrain using desktop tools (M1, M2, M3)                                                                                 | 3. Analyze terrain for its capacity to produce avalanches including estimate of frequency, magnitude and type | 4. Describe terrain use as it relates to different elements at risk (M1, M2, M3) |                                                                               |
| <b>F.</b> | <b>Evaluate current avalanche hazard</b>    | 1. Integrate snow, weather, avalanche, terrain & human use data into an Avalanche Hazard Analysis | 2. Develop a daily operations plan based upon the current hazard for a variety of contexts (e.g. snowmobile club, mining operation, school groups) | 3. Develop a risk treatment plan based on current hazard.                                                     |                                                                                  |                                                                               |
| <b>G.</b> | <b>Travel safely in avalanche terrain</b>   | 1. Identify safe routes & hazardous areas pre-trip and field                                      | 2. Select optimal route(s) pre-trip and field                                                                                                      | 3. Apply appropriate travel measures and safety measures to mitigate risk                                     |                                                                                  |                                                                               |
| <b>H.</b> | <b>Manage personal performance</b>          | 1. Recognize the implications of his/her personal location on the novice to expert continuum      | 2. Recognize strengths & challenges of his/her learning style                                                                                      | 3. Use appropriate techniques to compensate for limitations affecting personal decision-making                | 4. Apply positive self-evaluation techniques                                     | 5. Use appropriate techniques to turn 'experiences' into 'useful experiences' |
| <b>I.</b> | <b>Manage personal wellness</b>             | 1. Minimize the impact of fatigue on decision-making                                              | 2. Manage the impact of self/peer/employer pressures on decision-making                                                                            | 3. Manage personal wellness factors to optimize decision-making                                               |                                                                                  |                                                                               |
| <b>J.</b> | <b>Apply effective communication skills</b> | 1. Use active listening skills                                                                    | 2. Consider the value of diverse perspectives                                                                                                      | 3. Give & receive feedback in a constructive way                                                              | 4. Lead an operational activity and discussion                                   | 5. Apply conflict resolution skills                                           |

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|-----------|------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|           |                                                                        | 6. Respond effectively to customer/co-worker/employer questions & concerns | 7. Communicate avalanche hazard data in verbal, written, and visual formats using appropriate terminology | 8. Communicate avalanche information and risk to intended target audience         | 9. Communicate effectively using a radio                                                                                     | 10. Describe how to implement change in the workplace |
| <b>K.</b> | <b>Demonstrate effective participation in a team</b>                   | 1. Participate effectively in team meetings                                | 2. Contribute to team discussion and achieving team objectives                                            | 3. Develop an operational plan, set priorities, and adjust priorities as required |                                                                                                                              |                                                       |
| <b>L.</b> | <b>Apply operational risk management strategies and guidelines</b>     | 1. Implement an Avalanche Safety Plan                                      | 2. Apply worker safety regulations                                                                        | 3. Maintain personal and group situational awareness                              | 4. Make risk optimal operational decisions in the field that reflect the CAA Industry Training Program operational risk band | 5. Apply decision verification techniques             |
| <b>N.</b> | <b>Model professionalism</b>                                           | 1. Demonstrate the characteristics and role of a professional              | 2. Describe effective mentoring                                                                           | 3. Describe a personal continuing professional development plan                   | 4. Describe the CAA's Code of Ethics                                                                                         | 5. Describe CAA's Scope of Practice Guidelines        |
| <b>O</b>  | <b>Describe the scope of practice for Level 2 avalanche operations</b> | 1. Discuss Level 2 mentorship                                              | 2. Discuss the roles and responsibilities of a Level 2 graduate                                           |                                                                                   |                                                                                                                              |                                                       |

\*Each goal and objective may be comprised of several classroom and field based lectures.