Canadian Avalanche Association

Course Outline

Avalanche Operations Level 1

Description	The *Avalanche Operations Level 1* course is the foundational professional training program within the Canadian Avalanche Association's Industry Training Program, designed for individuals seeking employment in avalanche safety and control operations. This intensive course emphasizes the development of essential technical knowledge and field skills required for safe and effective avalanche work, including reliable observation techniques, systematic data collection, and sound decision-making in avalanche terrain. Learners will build a strong foundation in avalanche hazard recognition and risk management, preparing them to contribute competently to daily avalanche operations and pursue further professional development within the avalanche industry. Successful completion of this course positions graduates to work with avalanche safety programs across ski areas, transportation corridors, guiding operations, and related sectors.
Prerequisites	1. Introduction to Avalanche Operations – online course 2. Avalanche Search and Rescue Level 1 3. Recommended (NOT required) AST 1 & 2
Delivery Methods	The *Avalanche Operations Level 1* course is delivered using a blended learning model. Participants must complete the online pre-course, *Introduction to Avalanche Operations*, prior to attending the in-person portion of the course. The in-person component is delivered through a combination of classroom-based instruction and practical training in outdoor field environments. Classroom sessions focus on foundational theory related to avalanche operations, while field sessions emphasize hands-on observational skills for recording avalanche occurrences, conducting snowpack observations, and collecting weather data to a professional standard. This blended approach ensures learners develop both the theoretical understanding and practical field skills required for entry-level professional avalanche operations.
Course Materials	Students will receive a digital copy of the *Introduction to Avalanche Operations Course Manual* upon registration. An optional printed hard copy is available for purchase through Kindle Direct Publishing on Amazon for those who prefer a physical textbook. All additional course materials will be provided either digitally through a designated student Box folder or distributed in print during the in-person portion of the course. These materials may include worksheets, field books, reference documents, and assessment tools required for successful course participation.

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Duration	The online pre-course, *Introduction to Avalanche Operations*, is completed independently prior to the in-person course. Students should expect to spend approximately 25 hours completing this portion of the course, depending on individual learning pace and prior experience. The in-person component of the course is delivered over seven consecutive days and includes a combination of classroom instruction and outdoor field training.
Course Goals	Upon completion of the course learners will be able to: • Describe the formation and release of snow avalanches • Describe the factors that contribute to avalanche hazard and risk • Identify, classify and analyze avalanche terrain • Identify and describe the properties of mountain snowpack • Observe and record weather data • Observe and record snowpack data • Observe and record avalanche occurrence data • Describe and apply the process used in avalanche hazard assessment • Apply risk treatment methods • Apply standard safety procedures within a team environment • Describe the scope of practice for Avalanche Operations Level 1 Graduates
Assessment	Assessment in the *Avalanche Operations Level 1* course is based on a combination of written testing, practical field exercises, and documented observations. Students are evaluated on their ability to accurately observe and record weather, snowpack, and avalanche occurrence data; complete standardized field documentation; and demonstrate foundational understanding of avalanche hazard and terrain. Evaluation includes: a written exam, snow profile exam, practical observation of tasks, and assessment of each student's field book. To successfully complete the course, students must achieve a passing standard in all assessment categories, demonstrating consistent competence in both classroom and field-based components.