



MAST-146 – Avalanche Skills Training 1

Business

Effective Term & Year: Fall 2022

Course Outline Review Date: 2024-03-01

Program Area: Tourism, Recreation, & Hospitality

Description:

The Avalanche Skills Training program provides a national standard for entry level and intermediate level decision making in avalanche terrain. The curriculum provides a decision making framework suitable for use by people with a moderate degree of training and experience. This course covers two introductory certifications: AST 1 and Companion Rescue Certifications and focuses on safe travel practices in avalanche terrain. Several Canadian Avalanche Centre educational products are utilized to develop route finding, hazard awareness, companion rescue and decision making skills.

Program Information:

This course is the prerequisite for MAST 156, MAST 143, MAST 162, and has elements that form the basis for all ski touring and ski mountaineering and is required for completion of MAST Program.

Delivery Methods: On-campus (Face-to-Face), Practicum

Credit Type: College of the Rockies Credits

Credits: 2

Instructional Activity and Hours:

Activity	Hours
Classroom, Directed Studies or Online Instruction	12
Seminar/Tutorials	
Laboratory/Studio	

Practicum/Field Experience	24
Co-op/Work Experience	
Other	
Total	36

Course Requisites:

None

Flexible Assessment: Yes

In some cases students may be able to apply for recognition of prior learning outside the classroom. This flexible assessment process provides equivalent course credit. It is a rigorous process that may include external evaluation, worksite assessment, demonstration, standardized test, self-assessment, interview, products/portfolio, and challenge exam, or other measures as appropriate. Tuition fees apply. Contact an education advisor for more information.

Course Transfer Credit:

For information about receiving transfer credit for courses taken at either British Columbia or Alberta institutions, please see <https://www.bctransferguide.ca/> or <https://transferalberta.alberta.ca> . For more transfer credit information, please visit <https://www.cotr.bc.ca/Transfer>

All requests for course transfer credit from institutions in British Columbia or elsewhere should go to the College of the Rockies Enrolment Services office.

Textbook Resources:

Textbook selection varies by instructor and may change from year to year. At the Course Outline Effective Date the following textbooks were in use:

Avalanche Canada; Avalanche Skills Training Level 1 Course Manual 2018

Staying Alive in Avalanche Terrain – 3rd Ed. Bruce Tremper; 2018

Canadian Avalanche Association; Observation Guidelines and Recording Standards for Weather, Snowpack and Avalanches; Prepared by: Canadian Avalanche Association, 2014

Please see the instructor's syllabus or check COTR's online text calculator <https://textbook.cotr.bc.ca/> for a complete list of the currently required textbooks.

Learning Outcomes:

Upon the successful completion of this course, students will be able to:

- use the Avaluator™ as a filtering tool to determine when additional planning and travel techniques are required to travel safely;
 - be familiar with Avalanche Danger Ratings verification techniques for personal use on a local scale;
 - be familiar with the ATES technical model as a means to develop personal, local terrain ratings and identify avalanche terrain;
 - use route finding to take advantage of nuances in terrain to manage personal risk;
 - use travel techniques in avalanche terrain appropriate to the avalanche conditions;
 - proficiently carry out a companion rescue; and
 - understand the limits of your training.
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Course Topics:

- The Formation & Nature of Avalanches
 - Properties of the Mountain Snowpack
 - Significance of observations and field books
 - Demonstration of Weather readings at a standard observation plot
 - Backcountry safety measures and Companion Rescue
 - Transceiver practice and testing
 - Weather forecast discussion and effect on stability forecast
 - Avalanche Terrain & Terrain Traps
 - Avalanche Terrain Exposure Scale – Public Model, ATES
 - Avalanche Danger Ratings and Public Info
 - Decision Making Competence;
 - Trip Planning 1 – Avaluator, Personal Risk Zone, Route Planning
 - Danger Trends, Forecast Key words, Weather, Minimal Risk
 - Factors in Accidents, Human Factors, Group and pre-departure assessment
 - Equipment and Emergency Plans
 - Terrain recognition, route finding, safe travel, group management
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Evaluation and Assessments

Assessment Type: On-Campus (face-to-face)

Assessment Type	% of Total Grade
Participants are evaluated by practical and written tests in:	
1. weather snowpack and avalanche observation methods	20%
2. knowledge of avalanche terrain	20%
3. formation of avalanches	20%
4. the use of essential rescue equipment	20%
5. formal record keeping skills.	20%
Total	100%

Grade Scheme

COM	NCG
Completed to the minimum defined standard	No credit granted – less than minimum defined standard

Exam Attendance:

Students must attend all scheduled exams at the appointed time and place. Instructors may approve an alternate exam to accommodate an illness or personal crisis. Department heads will consider other written requests. Any student who misses a scheduled exam without prior approval will receive a “0” on the exam.

Academic Policies:

College of the Rockies policies related to courses can be found at <https://cotr.bc.ca/about-us/college-policies/> and include the following:

- Policy 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Conduct (plagiarism, other cheating, behavioral misconduct)
- Policy 2.5.8 Academic Performance
- Policy 2.5.3 Grade Appeal
- Policy 2.4.9 Student Concerns Re Faculty

Equivalent Course(s) and Course Code Changes

Prior Course Code: MAST 146 Avalanche Skills Training >> MAST 146 Avalanche Skills Training 1

Date changed: June 2018

Course Changes:

The College of the Rockies updates course outlines regularly to meet changing educational,

employment and marketing needs. The instructor will notify students in writing of any updates to this outline during the semester. The instructor reserves the right to revise, add or delete material while meeting the learning outcomes of this course outline.