



Mountain Adventure Skills Training Program (MAST)

Program Outline

PROGRAM IMPLEMENTATION DATE:	
OUTLINE EFFECTIVE DATE:	September 2022
PROGRAM OUTLINE REVIEW DATE:	March 2027

GENERAL PROGRAM DESCRIPTION:

The Mountain Adventure Skills Training Program (MAST) is designed for full-time students interested in pursuing a **one-year certificate** and meets the requirements of the BC Provincial common core curriculum.

The program prepares students for employment in the field of Adventure Tourism or to continue their studies toward university degrees. The program has been designed to introduce students to a broad range of skills, required certifications and technical knowledge through class lectures, projects and multiple outdoor field courses. This is a generalist program where students develop functional-transferable skills that enable them to gain employment in seasonal adventure tourism jobs. Students also receive industry-recognized certificates including: CPR C, Occupational First Aid Level 3 or Wilderness First Responder (80 hours min); Ski/Snowboard Instructor; Canoe Guide; Swiftwater Rescue Technician 3, Avalanche Skills Training 1, 2 and Companion Rescue; Interpretive Guide's Assoc. Basic Knowledge Course.

After completion of the MAST certificate students may find employment in entry-level jobs in adventure tourism and recreation businesses: Professional Ski Patrol, Raft Guide, Tail Guide – Cat Skiing, Ski/Snowboard Instructor, Adventure Camp Instructor etc.

Credential Granted

The Mountain Adventure Skills Training Certificate is awarded upon successful completion of required courses as listed in Year 1 of the program (first and second semesters).

Program Information: The MAST program follows the provincial core curriculum. The MAST program has block transfer agreements with the Adventure Tourism Business Operations Diploma program at the Golden Campus of the College of the Rockies. For more information see <http://www.cotr.bc.ca/Transfer>.

- 38 of 48 Credits are required to complete the MAST Certificate
 - Elective courses are included in the program fee and are not refundable.
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Delivery: This program is delivered face-to-face.

COTR Credits Available: 48

COTR Credits Required for Full Certificate Credential: 38

Hours for this program: 803-1037 hours

Typical Structure of Instructional Hours:

Instructional Activity	Duration
Lecture Hours	329-393
Seminars / Tutorials	
Laboratory / Studio Hours	
Practicum / Field Experience Hours	462-632
Other Contact Hours	12
Total	803-1037

Program Outline Author or Contact:

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Signature

APPROVAL SIGNATURES:

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EDCO

Valid from: September 2022 – March 2027

Education Council Approval Date

PROGRAM PREREQUISITES AND TRANSFER CREDIT:

Academic Admission Requirements:

- Secondary school graduation or equivalent.
- Minimum 65% in either English 12, English Studies 12, English First Peoples 12, ENGL 090, or equivalent (refer to Course Equivalency information on the College Website).

Non-Academic Admission Requirements

- 19 years or older as of September 4th, prior to program beginning.

- Completion and submission of MAST Program Admissions Package, which includes a letter of interest, a resume, a reference letter from employer or educational instructor, the MAST Application Questionnaire, the MAST Ski Ability Policy and Agreement, the MAST Physical Fitness & Abilities Agreement, the MAST Medical History Questionnaire, and the MAST general program waiver, and
- Students will be required to sign a general program release and waiver form before attending any outdoor activity.

Flexible Assessment (FA):

Credit can be awarded for this course through FA Yes No

Learners may request formal recognition for flexible assessment at the College of the Rockies through one or more of the following processes: External Evaluation, Worksite Assessment, Demonstration, Standardized Test, Self-assessment, Interview, Products/Portfolio, Challenge Exam. Contact an Education Advisor for more information.

Transfer Credit: For transfer information within British Columbia, Alberta and other institutions, please visit <http://www.cotr.bc.ca/Transfer>.

Students should also contact an academic advisor at the institution where they want transfer credit.

COURSE GRADE:

Course grades are assigned as follows:

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Mark (Percent)	≥ 90	89-85	84-80	79-76	75-72	71-68	67-64	63-60	59-55	54-50	< 50

A grade of "D" grants credit, but may not be sufficient as a prerequisite for sequential courses.

COURSE LIST

CREDITS/HOURS

REQUIRED COURSES	
MAST 111 Risk Management in Adventure Tourism	3/45
MAST 114 Natural History	3/45
MAST 119 Guiding and Leadership	3/45
MAST 121 Introduction to Adventure Tourism Industry	3/45
MAST 122 Wilderness Travel Theory	3/64
MAST 136 Entrepreneurship and Small Business Development	3/45
MAST 140 Rock Climbing 1	2/62
MAST 141 Hiking 1	2/74
MAST 142 Mountaineering 1	2/62
MAST 143 Ski Touring 1	2/52
MAST 144 Canoe Skills 1	2/40
MAST 145 Whitewater Raft Guide Training 1	2/40
MAST 146 Avalanche Skills Training 1	2/36

MAST 147 Alpine Ski/Snowboard Instructor Certification	2/32
MAST 156 Avalanche Skills Training 2	2/72
One of the Following	
MAST 150 Occupational First Aid Level 3 (or MAST 151)	2/80
MAST 151 Wilderness Medical Associates Wilderness First Responder (or MAST 150)	2/80

ELECTIVE COURSES	
(no extra charge for electives, no refund if you choose not to do elective)	
MAST 162 Ski Tour 2	2/62
MAST 165 Swiftwater Rescue Technician 3	2/32
MAST 169 River Expedition Skills	2/30
One of the Following (concurrent courses)	
MAST 166 Whitewater Raft Guide Training 2	2/40
MAST 167 Intro. to Whitewater Kayaking	2/50
One of the Following (concurrent courses)	
MAST 168 Canoe Guide Certification	2/52
MAST 172 Mountain Bike Skills Development	2/40
38 of 48 Credits required for Full Certificate Credential Program	

CORE ACADEMIC COURSE DESCRIPTIONS:

MAST 111 Risk Management in Adventure Tourism

Students explore legal and industry standards for risk management in Adventure Tourism. Topics include the guide’s role in managing risk, Canadian legal system, developing a risk management plan, the role of insurance and legal releases.

MAST 114 Natural History

This course provides an overview of the natural/cultural history of the Southern Canadian Rocky Mountains and develops interpretation techniques to communicate this information. Lectures, demonstrations, and hands-on field experiences will cover the topics of geology, ecology, botany, biology, human history, ecosystem-based management and heritage interpretation. Students develop skills in classification, identification, interpretive techniques, and stewardship of the environment.

MAST 119 Guiding and Leadership

This course involves an exploration of leadership and effective practice of theories and concepts of teaching, guiding and learning in an outdoor setting. Students examine leadership models, group and individual facilitation and the importance of communication while building a blue print of their own personal leadership philosophy and abilities. Other topics include certification standards, log book requirements and legal parameters.

MAST 121 Introduction to Adventure Tourism Industry

This course provides an overview of the variety, products, and infrastructure of adventure tourism in the province. Students explore past trends and discuss the future of adventure tourism while examining the

positive and negative impacts the industry has on communities, ecosystems, and economies. Topics of land use, environmental impacts and cultural considerations in tourism are discussed. This also helps students evaluate the scope of career options and define their own role in this exciting industry.

MAST 122 Wilderness Travel Theory

This course reviews aspects of wilderness travel such as clothing and equipment, navigation, environmental concerns and group travel techniques. Students learn to identify and understand declination and magnetic north, take a bearing from a map, set a compass from a map and follow a compass bearing. Students gain a thorough knowledge of topographical maps, the military grid system and will utilize new learning in trip planning exercises.

This course introduces the student to the concepts of summer and winter emergency survival in wilderness settings. Topics such as fire building, shelter building, and the psychology of stress are discussed. Overnight survival exercises complete the course.

MAST 136 Entrepreneurship and Small Business Development

This course introduces the development, planning, marketing, financing and key success factors required to start new action sport, eco-and adventure tourism businesses. Students consider the opportunities, risks and issues specific to small business ventures during pre-startup, launch and initial growth. This course is designed to assist the student in developing viable business model, then create a basic professional business plan, supported by research from primary and second sources. In addition to textbooks, the instructor uses case studies and multiple industry examples to illuminate courses concepts.

ACTIVITY AND SKILLS COURSES:

MAST 140 Rock Climbing 1

This course introduces the student to the basics of top roped rock climbing. Students learn the basic knots, safety procedures, equipment and rope skills, group management and climbing techniques to safely set up and climb basic top roped climbs.

Prerequisite for MAST 142.

MAST 141 Hiking 1

This course involves a five-day hike through local alpine mountainous terrain where students learn basic camp skills, environmental concerns, group travel considerations, safety and route planning, navigation, food and menu preparation. Classroom and field preparation days lead to a five day mountain expedition.

MAST 142 Mountaineering 1

This course introduces students to basic glacier travel. Students develop skills in group management, roped travel, crevasse rescue, glaciology, winter camping skills, snow and ice anchors.

MAST 143 Ski Touring 1

Prerequisite: MAST 146

This course focuses on the skills necessary to travel, ski or snowboard safely in the backcountry in winter. These skills include ski touring equipment knowledge and proficiency, route finding, avalanche terrain and hazard evaluation, group travel management, and companion rescue.

MAST 144 Canoe Skills 1

This course prepares the student to canoe tandem and solo in lake water and class 1-2 river situations. Basic strokes and maneuvers are taught while canoe safety and self rescue are practiced and demonstrated. Curriculum follows the Recreational Canoe Association of BC Advanced Tandem and Solo sections as well as touching on Basic Moving water skills.

MAST 145 Whitewater Raft Guide Training 1

This course prepares the student for employment in the BC Rafting Industry. Students will learn how to read whitewater, manage a team in the raft, perform river rescues, rig a raft and to maneuver a raft in up to class 3 water.

MAST 146 Avalanche Skills Training 1 CAA endorsed curriculum

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, complain rescue and decision making skills.

MAST 147 Alpine Ski/Snowboard Instructor Certification Level 1

The Level 1 Courses combine the basics of practical teaching methods, technical understanding and development of guest service skills. Candidates receive coaching on their riding, teaching and people skills with the goal of reaching the Level 1 standard. They also receive suggestions and strategies for long-term development. Level 1 is a pre-requisite for Level 2. The alpine skiers take the CSIA Alpine Ski Instructor Level 1 Certification course. The snowboarders take the CASI Snowboard Instructor Level 1 Certification course.

MAST 150 Occupational First Aid Level 3 Certification OR

MAST 151 Wilderness Medical Associates Wilderness First Responder

80-hour advanced industry standard courses covering emergency medical techniques.

MAST 156 Avalanche Skills Training 2 CAA endorsed curriculum

Avalanche Skills Training 2 builds on the foundations of the Avalanche Skills Training 1 course. AST 2 provides a more advanced decision making framework that is based on the most advanced knowledge available and is suitable for use by people with a moderate degree of training and experience. Classroom and field sessions focus on developing route finding, hazard awareness, companion rescue and decision making skills.

MAST 162 Ski Tour 2

Prerequisites: MAST 143 and MAST 156

An advanced Ski Mountaineering course where students advance their ski touring skills in larger mountainous terrain. Students spend five days practicing route finding and navigation skills, winter camping skills, assessing avalanche terrain and skiing through glaciated terrain.

MAST 165 Swiftwater Rescue Technician 3 (Rescue Canada)

This four-day intensive certification course develops the student's abilities to react correctly in a river rescue situation. Students will learn to be comfortable in moving water and have a basic understanding of moving water principles while practicing proven river rescue techniques for canoeists, kayakers, rafters and rescue personnel.

MAST 166 Whitewater Raft Guide Training 2

Prerequisite MAST 145

Building upon Whitewater Raft Guide Training 1 this course develops advanced skills and maneuvers in rivers up to Grade 3. Students refine river reading skills, work as a team and are tested to the standards required by the BC Rafting Outfitters Assoc. Multiple days on the Elk and Bull rivers develop strong team rafting skills as well as safety and risk management practices.

MAST 167 White Water Kayak 1

Prerequisite: MAST 145

This course is designed to develop skills at the novice whitewater kayaking level. Students are educated in safety issues as well as equipment design and use. Instruction is provided in flat water techniques, progressing into gentle whitewater and river running procedures. This course prepares the student to safely progress to grade three whitewater and covers theoretical knowledge and practical application of whitewater kayaking skills.

MAST 168 Canoe Guide Certification

Prerequisites: MAST 144

Building upon skills learned in Canoe Skills 1 students can be certified at the Day Guide and Expedition guide levels providing they meet the Recreational Canoeing Association of British Columbia standards. The course focuses on: paddling, rescue and teaching skills, group management and dynamics, risk assessment and decision making, meal preparation and hygiene, camping, *Leave No Trace* and interpretive skills. The Expedition Guide Certificate requires solid moving water skills in addition to many other leadership, coaching, communication, camping and environmental skills.

MAST 169 River Expedition Skills

Prerequisites: MAST 144, MAST 145, MAST 166 or 167

This course will introduce the students to multi day large group river expedition guiding skills. Topics include menu planning, shopping, packing and cooking for a large group. Students will utilize group cooking equipment and food safety and handling techniques. Planning, packing, set up of group paddling equipment, various style of craft, safety gear, personal gear packing and storage in crafts. The students will execute a large group multi day expedition.

MAST 172 Mountain Bike Skills Development

This course is geared towards beginners to advanced mountain bikers looking for formal instruction in riding techniques, mountain bike guiding skills, trail building and bike maintenance. Taking place in Fernie, this course utilizes local trails, professional bike guides and mechanics and local trail builders to encompass a complete overview of the employment opportunities in this growing sector.

Industry Certifications:

1. Canoe Guide Certification <https://www.bccanoe.com/courses/rcabc-courses2#expguide>
2. Advanced Tandem Lakewater Paddler <http://www.bccanoe.com/courses/rcabc-program-overview>
3. Basic Solo Lakewater Paddler <http://www.bccanoe.com/courses/rcabc-program-overview>
4. Tandem Moving Water Paddler <http://www.bccanoe.com/courses/rcabc-program-overview>
5. Swiftwater Rescue Technician 3 <http://www.rescuecanada.ca/swiftwater/safety-training-professional-guide/>
6. Avalanche Skills Training 1 http://www.avalancheassociation.ca/?page=Level_1
7. Avalanche Skills Training 2 http://www.avalancheassociation.ca/?page=Level_2
8. Companion Rescue <http://old.avalanche.ca/cac/training/online-course/rescue/companion-rescue>
9. Interpretive Guides Assoc. Basic Knowledge Course <http://www.interpretiveguides.org/main.php?p=639&s=609>
10. CASI Snowboard Instructor Certification <http://www.casi-acms.com/index.php/en/level-1-instructor>
11. CSIA Ski Instructor Certification <http://www.snowprobc.com/level-one/>
12. Wilderness First Responder Certification <http://www.wildmed.ca/wilderness-medical-courses/first-response/wilderness-first-responder.php>
13. Occupational First Aid <http://www.firstaidforbc.com/?gclid=CJOXsKep2b0CFROVfgodJyIARg>