



**Wilderness Medical Associates Wilderness First
Responder – MAST 151**
Mountain Adventure Skills Training Program

Course Outline

COURSE IMPLEMENTATION DATE: January 2003
OUTLINE EFFECTIVE DATE: September 2019
COURSE OUTLINE REVIEW DATE: March 2024

GENERAL COURSE DESCRIPTION:

The Wilderness First Responder program is the ideal medical training for leaders in remote areas including outdoor educators, guides, military, professional search and rescue teams, researchers, and those involved in disaster relief. The curriculum is comprehensive and practical. It includes the essential principles and skills required to assess and manage medical problems in isolated and extreme environments for days and weeks if necessary.

Program Information: This course or MAST 150 is required for the completion of the MAST certificate.

Delivery: This course is delivered face-to-face.

COTR Credits: 2

Hours for this course: 80 hours

Typical Structure of Instructional Hours:

Instructional Activity	Duration
Lecture Hours	40
Seminars / Tutorials	
Laboratory / Studio Hours	
Practicum / Field Experience Hours	40
Other Contact Hours	
Total	80

Practicum Hours (if applicable):

Type of Practicum	Duration
On-the-job Experience	
Formal Work Experience	
Outdoor First Aid Training Field Experience	40
Total	40

Course Outline Author or Contact:

Sarah Osberg, MAST Program Coordinator/Instructor

Signature

APPROVAL SIGNATURES:

Department Head
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Department Head Signature

Dean Signature

EDCO

Valid from: September 2019 – March 2024

Education Council Approval Date

COURSE PREREQUISITES AND TRANSFER CREDIT:

Prerequisites: None

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.

Prior Course Number: SERS 112 ⇔⇔ MAST 151

Date changed: March 2009

Textbooks and Required 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:

Wilderness and Rescue Medicine, Practical Case Studies for the Basic and Advanced Practitioner.
2007 Tom Clausing; Wilderness Medical Associates

Wilderness and Rescue Medicine, 2013, Jeffery E. Isacc PA-C, David E. Johnson, MD

Wilderness Medical Associates Field Guide of Wilderness Rescue Medicine, Jim Morrissey &
David Johnson MD

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

LEARNING OUTCOMES:

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

- discuss the General Principles of Wilderness and Rescue Medicine with an emphasis on the prevention and identification of medical emergencies, patient assessments treatment plans, and risk management;
 - show patient assessment and emergency care including CPR, basic Life support, and the emergency treatment of anaphylaxis and asthma;
 - identify environmental medicine including altitude illness, hypothermia and heat illness, frostbite and cold injury, lightning, submersion, and environmental toxins;
 - outline backcountry medicine including the assessment and treatment of common medical problems;
 - assess musculoskeletal problems including unstable and stable injuries overuse, syndromes and dislocations;
 - assess wound management including open fractures, lacerations, burns and blisters;
 - implement practical skills including splinting, bandaging, litter packaging and medical kit preparation; and
 - evaluate WMA International Wilderness protocols including wound cleaning and exploration, spine injury assessment, dislocation reduction, CPR in the remote setting, and anaphylaxis and asthma.
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COURSE TOPICS:

Introduction and Principles

- course purpose, emphasis & scope
- medical/legal aspects of injury prevention and emergency care
- regulations and legislation

Situation Assessment

- impact of environment on emergency wilderness care
- environmental hazards & considerations
- search and rescue concepts
- scene assessment flow chart
- mechanisms of injuries
- communication concepts and skills
- interacting with patients

Basic Anatomy and Physiology/patient assessment

- body systems
- diagnostic signs
- primary and secondary patient assessment
- history taking and reporting
- triage in multiple casualty incidents

Thoracic Trauma

Signs, symptoms and managing techniques for:

- pneumothorax
- haemothorax
- flail chest

Airway Management

- causes and prevention of airway obstruction or cessation of breathing
- clearing obstructed airways
- manual resuscitation devices CBVM
- oxygen therapy, suction therapy

Cardiac Arrest

Factors leading to cardiac arrest cardiopulmonary resuscitation techniques:

- 1 & 2 man
- adult, child, infant

Circulatory Emergencies

- blood pressure measurement and assessment
- internal/external bleeding and management
- signs, symptoms and management of shock

Soft Tissue Injuries

- features and use of dressings and bandages
- assessment and treatment of injuries and wounds to eyes, ears, nose, throat and teeth
- assessment and treatment of burns

Musculoskeletal/CNS Injuries

- fractures, dislocations, sprains/strains
- assessment of unconscious casualties
- head injuries – causes, mechanisms and management
- assessment and management of injury to spine and spinal cord

Medical Emergencies

- abdominal injuries
- seizures, diabetes, epilepsy
- pregnancy and childbirth
- poisons, stings, bites – human and animal
- heat and cold injuries
- altitude sickness
- diving and drowning hazards

Extrication and Rescue

- principles and techniques of stabilization and extrication
- preparing and packaging patients for evacuation
- improvising litters, patient carriers
- first aid kits and equipment
- soap notes

See instructor’s syllabus for the detailed outline of weekly readings, activities and assignments.

EVALUATION AND ASSESSMENT:

Assignments	% Of Total Grade
1. Students are evaluated by practical and written tests in first-aid, extrication and evacuation. 2. A score of 80% is required to pass. Continuous evaluation used to determine participants ability to apply skills learned and comprehension of the key concepts.	100%

Please see the instructor syllabus for specific classroom policies related to this course, such as details of evaluation, penalties for late assignments, and use of electronic aids.

EXAM POLICY:

Students must attend all required scheduled exams that make up a final grade at the appointed time and place.

Individual instructors may accommodate for illness or personal crisis. Additional accommodation will not be made unless a written request is sent to and approved by the appropriate Department Head prior to the scheduled exam.

Any student who misses a scheduled exam without approval will be given a grade of “0” for the exam.

COURSE GRADE:

COM	Completed to defined standard
NCG	No Credit Granted

ACADEMIC POLICIES:

See www.cotr.bc.ca/policies for general college policies related to course activities, including grade appeals, cheating and plagiarism.

COURSE CHANGES:

Information contained in course outlines is correct at the time of publication. Content of the courses is revised on an ongoing basis to ensure relevance to changing educational, employment and marketing needs. The instructor will endeavour to provide notice of changes to students as soon as possible. The instructor reserves the right to add or delete material from courses.