



MAST-151 – Wilderness Medical Associates Wilderness First Responder

Business

Effective Term & Year: Fall 2022

Course Outline Review Date: 2024-03-01

Program Area: Tourism, Recreation, & Hospitality

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 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	40
Seminar/Tutorials	
Laboratory/Studio	
Practicum/Field Experience	40
Co-op/Work Experience	
Other	

Total	80
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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:

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 <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:

- 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 Assessments

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

Assessment Type	% of Total Grade
1. Students are evaluated by practical and written tests in first-aid, extrication and evacuation.	100%
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.	

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: SERS 112 >> MAST 151

Date changed: March 2009

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.