



WILDERNESS MEDICAL ASSOCIATES®

WFA Curriculum Guide

Goals and Background

The Wilderness First Aid course is ideally suited to for those who want a brief but intense introduction to wilderness first aid and primarily doing personal trip and outings in semi-remote areas. The program's goals are to equip participants with the basic knowledge and skills to adapt first-aid techniques to the demands of wilderness locations and to help them identify potential life threatening emergencies and their severity within a wilderness context. Upon successful completion, the learners should achieve decent recognition and recall skills with some understanding of the principles. They should be able to recognize an emergency and formulate an appropriate initial plan.

Suitable Audiences

This course is intended for non-medical professionals for whom first aid delivery is a secondary responsibility and for those who are acting as a second rescuer for a higher trained person. These could include:

People with the outdoor skills needed to participate and/or lead the trip where there is an effective emergency action plan in place.

People going on short trips, relatively close to help, day trips/camps, stationary wilderness camps, weekend family activities, front county outdoor recreation.

People in locations where evacuations are primarily walkout or carry out with the assistance of local resources and where local EMS access is expected in a timely manner (< 8 hours).

Protocols Taught

- Epi and Medications for Anaphylaxis.
- Wound Cleaning and removal of impaled objects

Prerequisites and Eligibility

- Must be at least 16 years of age to participate in this course. Learners who are 16 and 17 years old must have written proof of parental consent. Any exceptions must first be approved by the WMA Medical Director.

Certifications (Valid for 3 years)

- Wilderness First Aid (WFA) wallet card including language about CPR and epinephrine for anaphylaxis training.

Length of Course

This program is 16 - 18 hours in length and delivered over 2 days. Note that this is total instructional time, and does not include lunch or homework time.

This course offers some flexibility. Specialty courses can be expanded on the existing chassis (e.g., BMR, OEM). Option A (see below) has a prescribed list of topics and offers no flexibility on

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content. Option B (see separate Guide) has 6.5 hours of required content with an additional 9.5 hours of electives. Note that Option B is not recognized by the Coast Guard or the states that have approved of our WFA curriculum. Check with the Medical Director or course operations coordinator.

Books

- WMA First Aid Guide
- SOAP Notes Booklet
- Outward Bound Text

Students will get new editions of ALL of these books on the first day of the course.

Equipment Supplied by Office

- Epi-pen only (1 epi-pen trainer in each fastpack)
- Fast packs - 1 fastpack per 3 learners (only if not supplied by instructor)
- Course paperwork
- AED trainer (or supplied by instructor)

Equipment Supplied by Instructor (tools of the trade)

- Fast packs (if owned)
- CPR mannequins (if not supplied by sponsor).
- Moulage Kit
- Laptop Computer
- Digital Projector (if not supplied by sponsor)
- Wound cleansing kit

Equipment from Sponsor (instructor should confirm all of this beforehand):

- Digital Projector and Projection Screen
- Classroom with Chairs and Tables
- CPR manikins (instructor needs to confirm or bring your own)
- Hypo wrap material - sleeping bag(s), tarp, garbage bags, and ground insulation (instructor needs to confirm with sponsor or bring your own).
- Splinting material – the sponsor will supply materials that are used on-site; supplemental material may be necessary.



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Presentation Notes and Approach

- This guide is intended for instructor use only. It is not to be distributed to learners or sponsors. Also refer to tricks-of-the-trade, skills videos, and any of the other resources available on the instructor page at www.wildmed.com.
- This curriculum guide is NOT intended as a course flow outline, but rather as a compilation of all topics that are expected to be within the WFA. Choose a flow that suits your style, your learners' needs, and the sponsor's needs. (*see sample course schedule*)
- This course curriculum guide and its principles are intended to meet the wide range of requirements of people who live, work and travel anywhere in the world.
- If there is a need for locally specific information (e.g., toxins/snake envenomations), contact the medical/curriculum director for supplemental resources or get approval for any supplemental material you have put together.
- If you have concerns about the curriculum because of regional variations (e.g., no need for lightning in Iceland) remember the often transient nature of our learners. It may be appropriate to their next area of travel.
- Each topic has a specified format that is strongly suggested for delivery of the material. (i.e. Lecture, Demonstration, Practice, etc). Most topics are abbreviated from WFR presentations.
- For purposes of time efficiency and educational effectiveness, the preferred methodology for instructing material in the WFA is through the use of PAS Drills and interactive exercises such as the back country med rodeo. Prolonged lecture-style presentations are discouraged.
- There are several courses built on the WFA chassis e.g., BMR, OEM. They cover all of the standard WFA curriculum often with supplemental topics expanding the course to 3 or 4 days. In some, the CPR is a prerequisite.
- As always, skill proficiency is dependent upon repetition. Consider using as many hands-on ways of instructing as possible, and include repetition in key skills (i.e. anaphylaxis assessment) to help rein-force the learner's proficiency.
- Any questions about the content or scope of the WFA should be directed to:

David Johnson, President and Medical Director – dejowma@gmail.com



Evaluation and Assessment

This is a short, fast-paced course making the regular check-ins expected on other courses difficult. This course does have pass/fail criteria similar to all WMA courses:

- Lack of attendance (learner misses a portion of the course that the instructor deems is too great for full comprehension of the course).
- Lack of participation (the learner opts out of PAS drills, labs, or scenarios).
- Inability to demonstrate CPR. Learners need to demonstrate that they can perform compressions, ventilations and the other required skills for this level of CPR.
- Cannot demonstrate or explain the procedure for delivering epinephrine via an auto-injector.
- Failure to perform or demonstrate the appropriate use and understanding of the protocols included in the curriculum.
- Failure to perform at least one formally presented patient assessment. Learners should be permitted to use their SOAP notes and field guide to assist with these assessments.
- Written Exam: 80% is considered a passing grade but it is not an absolute requirement for passing the course. By prior arrangement, the exam can be administered orally, read to the learner, or done as case studies. Extra time can be given. On a case-by-case basis exam can be waived with the approval of the medical director. Passing the exam is not a criterion for passing the course.
- All instructors are expected to make reasonable accommodations for learners with special needs. Learners should be monitored for their progress. Instructors should communicate supportively and promptly with those who are not progressing effectively. You are encouraged to communicate with the medical director or course operations coordinator about any concerns.
- Given the brevity of this course, our expectations of them should be modest. We are striving for decent levels of recognition and recall and some understanding of the most important concepts. Ultimately, these criteria shall be used as guidelines for the instructor and not as an all-encompassing model to pass/ fail a learner. It is the judgement of the lead instructor to decide and document why a learner has passed or failed the course.
- At the conclusion of the course, the learner should be able to demonstrate a level of competence comparable to any other Wilderness Medical Associates WFA. If you are not satisfied with the learner's ability after making reasonable efforts at accommodations and/or remediation, a failing grade is appropriate. Please inform the office as soon as possible. Do not make arrangements for remedial work (e.g., retesting) without gaining approval from the office.



**WFA Course: Option A
CORE CURRICULUM**

Registration & Introduction

0.5 hour

FORMAT: Lecture

- Course Logistics – go over functional position statement.
- Paperwork – collect indemnities, releases, etc.
- Staff/Learner Introductions
- Scope/Goals of the WFA Course
- Ground Rules: Course format and any facility information
- Pass/Fail Criteria

NOTES

- Remember a first impression is a lasting impression.

General Principles

0.5 hours

FORMAT: Lecture

- Describe wilderness/delayed transport
- Body Systems approach
- Perfusion/Ischemia/Infarction
- Oxygenation & Perfusion
- Critical Systems Overview (& major problem for each)
- Mental Status
- Swelling & Pressure
- Risk/Benefit Ratio
- Ideal to Real
- Most Patients Live

NOTES

- General concepts are adaptable to different styles. Consider adding additional concepts if warranted, or work with others as teachable moments arise during class discussion. These should be reiterated throughout the entire class.



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Patient Assessment System

0.5 hour

FORMAT: Brief lecture and demonstrate, or integrate into PAS Drills

- Purpose/significance of PAS
- Scene Size Up
- Primary Assessment
- Secondary Assessment
- SOAP/Documentation

NOTES

- Emphasize “mottos” for each triangle (stabilize scene, stabilize patient, complete then treat).
- Avoid too much detail.
- Consider covering scene size up and primary assessment at this time and leaving secondary assessment for the following day.
- Emphasize clear and concise Assessment (Problems) and Plans (Treatment).

Critical Systems

3 hours

FORMAT: Brief Introduction of Concepts/PAS Drills

- Circulatory System
 - ✓ Volume Shock (bleeding and dehydration)
 - ✓ ASR
- Respiratory System
 - ✓ Distress/failure/arrest
 - ✓ PROP
- Nervous System
 - ✓ STOPEATS
 - ✓ TBI
 - ✓ Increased ICP
 - ✓ Spine Precautions

NOTES

- Mini-lecture followed by appropriate PAS drills (or *vice versa*) that emphasize the evolution of common VS patterns and different mechanism. Compare and contrast differences simply.



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BLS

2.5 hour

FORMAT: Skills Demonstration/Practice, Lecture

- Basic Life Support Skills Demonstration/Practice
- Respiratory System Review
 - ✓ Airway assesment
 - ✓ Rescue Breathing
 - ✓ Vomit rolls/recovery position
- Circulatory System Review
 - ✓ Management of Severe Bleeding (well-aimed direct pressure, compression wrap, and tourniquet concepts)
 - ✓ CPR
- Nervous System
 - ✓ Assessment/Definition of AVPU
 - ✓ Spine Management
 - ✓ Spine stable rolls
- BLS Equipment
 - ✓ AED
 - ✓ Barrier Devices/Masks
 - ✓ Universal Precaution/BSI
 - ✓ Compression Wraps, Tourniquet-Concepts

NOTES

- After demonstrations, this topic should be covered almost entirely through hands-on skills practice including Basic Life Support drills (Red Flag/Green Flag PAS drills). Correct and refine learners skills as they demonstrate them.
- One Rescuer Adult CPR is all that is covered at this level; Adult & Child with prior arrangement.
- Consider having a brief discussion afterwards about the potential limitations of CPR e.g., long evacuation, single rescuer, trauma, no AED, heart vs respiratory failure as the cause of arrest, high risk spine concerns – e.g., big MOI, <A, neuro complaints, extreme pain.

Musculoskeletal Injuries

0.25 hour

FORMAT: PAS Drill, followed by Debrief

- Stable vs. Unstable Assessment
- Treatment stable vs. unstable
- CSM – Assessment



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Splints - Extremities

0.5 hour

FORMAT: Brief demonstration (as needed)

- Principles of Splint Building: Comfortable, Compact, Complete
- Sling and swath
- CSM Monitoring

NOTES:

- Common techniques taught: go beyond principle, body/buddy splinting, SAM.

Lifts, Moves and Extrication

0.5 hour

FORMAT: Demonstration, Practice

- Basic Body Positions
- Principles of Movement
- Body Jams (upper/lower)
- Rapid Extrication moves

NOTES:

- Basic principles include; axial vs lateral movement, beaming, rolling, stabilizing weight centers.
- Stress patient comfort when spine injury suspected and waiting for help.



Allergy/Anaphylaxis

1.25 hours

FORMAT: Lecture, PAS Drill, Debrief, Injection Lab

- Immune System Overview
- Differentiation of local reaction:
 - ✓ mild allergic/anaphylaxis
- Anaphylaxis Protocol
 - ✓ Ephinephrine Administration
 - ✓ Injection considerations & technique
 - ✓ Care of Epinephrine
 - ✓ H₁ antihistamine (e.g., diphenhydramine/Benadryl)
- Medical/Legal Aspects of Epi
- Injections Lab: auto-injectors
 - ✓ Syringes/ampules/vials upon sponsor request & office approval only

NOTES:

- Due to the widely varying exposure that learner will have to this topic, plan on instructing this topic with the assumption of no prior knowledge on the part of the learner. This topic should be covered in the same manner as on a typical WFR or WFA course but limited to auto-injectors only and not histamine H₁ antagonists.
- As states pass auto-injector legislation, there may be some supplemental slides that cover specifics that may not be relevant for a wilderness setting. Check with Medical Director for questions and updates.



Wounds & Burns

0.75 hour

FORMAT: Lecture, Demonstration (Wound cleaning)

- Wound Classification
 - ✓ Simple/Cosmetic
 - ✓ Functional/High Risk
- Wound Cleaning & Impaled Object Removal Protocol
- Infection - Assessment & Treatment
- Burns
 - ✓ Classification
 - ✓ Assessment & Treatment

NOTES

- A slide presentation with pictures is a good way to illustrate the various types of wounds and the principles of recognition and management. Then focus on a good demo.
- General wound management should be a topic familiar to virtually all learners, regardless of their training background. Emphasis should be placed on wound cleansing and management of impaled objects.
- The wound cleaning lab is usually just a demo on a pig's foot or moulaged wound in front of the whole class. With sufficient time and the right group, smaller group skill stations can be run with, 2 – 3 people/foot.
- Consider a blister dressing demo, depending on group interest/needs.

Environmental Topics

1.25 hour

FORMAT: PAS drill, Debrief

- Submersion
 - ✓ MOI – BLS treatment
 - ✓ Anticipated Problems:
 - Hypothermia
 - Respiratory distress
 - Increased ICP
 - Spine
- Lightning
 - ✓ MOI
 - ✓ Associated Problems
 - ✓ Treatment/Prevention
- Thermoregulation:
 - ✓ Assesment & Treatment
 - Mild Hypothermia
 - Severe Hypothermia
 - Heat Exhaustion
 - Heat Stroke
 - Hyponatremia

NOTES

- These topics are best delivered through PAS drills with focused debriefs to follow.



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Backcountry Medicine

2 hours

FORMAT: Practice, Debrief

- Abdominal pain
- Vomiting/Diarrhea
- UTI
- Chest Pain
- Cough/URI
- Prevention/Camp
- Hygiene/Water
- Fever

NOTES

- This topic should be covered by means of a 'Rodeo', followed by debrief.
- De-emphasize specific diagnoses; avoid details of anatomy, physiology and pathophysiology
- Particular emphasis should be placed on the 'Red Flags' serious/not serious for the necessity and urgency of evacuation.
- Substitute program specific topics as required

Medical/Legal Issues

0.5 hours

FORMAT: Lecture

- Duty to Act vs. Good Samaritan Law

NOTES

- Special emphasis should be placed on the Wilderness Protocols, and the requirements to use them.

Behavioral

1 hour (Optional)

FORMAT: Lecture; Case Study Discussion

New Material

- Prescreening
- Change in Mental Status Assessment

Red Flags

- Worrisome Conditions/Behaviors
- Specific Diagnoses



Elective Topics

FORMAT: Lecture

- Altitude
- Frostbite
- Toxins, Bites & Stings
- SCUBA
- Avalanche
- Behavioral

NOTES

- These topics can be added by prior arrangement, request of sponsor, or particular interest of the group as time allows.
- Infant and child CPR can be added; CPR sometimes completely eliminated. Check with medical director or course operations coordinator.
- Extra days can be added for supplemental topics in specialized courses (e.g., OEM, BMR) or workshop by prior arrangement (e.g., dislocations, spine assessment, epinephrine for asthma). Check with medical director or course operations coordinator.

Small Group SIM if time allows

Final Testing

1 hour

- Written Examination (WFA Exam)

Course Wrap-up

1 hour

- Final paperwork- Disclaimers, Evaluations if not already done.
- Other training options- WAFA, Bridge, WFR.
- Maintenance of certifications- recertification options, reciprocity issues.