

WMSO

Wilderness Medical Special Operations

Student Course Guide



June 9-13, 2025
EKU's Maywoods Lodge
Crab Orchard, KY

About RedSTAR

RedSTAR is the volunteer wilderness special operations unit of Kentucky's Powell County Ambulance Service, covering the Red River Gorge. Comprised of professional EMTs, Paramedics, Nurses, and Physicians who donate their time and skills, RedSTAR supplies wilderness-capable medical providers to embed with area search and rescue teams in order to provide high-quality patient care during their operations. RedSTAR, Inc. provides these services as a not-for-profit contractor to Powell County Fiscal Court and maintains MOU's with several other agencies for operational support.

Organized in **2015** by veterans of Kentucky's SAR and EMS communities, we continue to grow year by year. In **2019**, RedSTAR conducted the first helicopter hoist rescue in Kentucky history with the 238th Dustoff unit. In **2021**, our members conducted the first high angle insertion of the 123rd Special Tactics Squadron's search K9 on a Kentucky deployment. RedSTAR members have been instrumental in defining the qualifications, educational requirements, and scope of practice for Kentucky's Advanced Practice Wilderness Paramedics. We provide high quality wilderness medical and rescue training to a range of local, state, federal, and military clients.

Your course tuition helps support and sustain our volunteer operations!



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@red_star_medical



RedSTARMedical.org



About This Course

Wilderness Life Support for the Medical Professional (WLS:MP) is a standardized curriculum developed by AdventureMed, who licenses and regulates WLS:MP delivery around the world. WLS:MP has been adopted by numerous wilderness medicine physician fellowship programs, federal agencies, and military special operations units as a key component of their educational pipelines.

Our WMSO course consists of the baseline WLS:MP curriculum, which emphasizes the **traditional wilderness**

medical model: simple interventions, often improvised using whatever items might be available in the personal gear of the rescuer, patient, and bystanders.

RedSTAR, however, represents the field of **Wilderness EMS**; organized, pre-planned delivery of emergency healthcare in the wilderness environment under duty to act. Although resourcefulness is a hallmark of this specialty, improvisation is de-emphasized in favor of thoughtful planning from the perspective of EMS systems of care. Accordingly, WMSO goes beyond the traditional wilderness medicine model (improvised and system agnostic) and extends into the EMS model (highly organized and regulated). Special areas of emphasis we have added to the standard WLS:MP curriculum include pharmacological therapies, rescue medicine, unique diagnostic equipment, and airway management. The course provides approximately 42 contact hours of continuing education.

Course Location

This course will be held at Eastern Kentucky University's Maywoods Lodge in Crab Orchard, KY. This 1,700-acre rustic facility includes indoor and outdoor classroom space, an extensive trail system, and a lake.

Though cellular service is poor, and landline is installed and wifi is available.

The address of the Maywoods Lodge is **447 Maywoods Road, Crab Orchard, KY 40419**, and is easily found on Google Maps.



Sleeping options onsite include bunkhouse-style beds (2-4 per room) separated into male and female wings, with bathroom and showers in each wing. **If choosing to stay in the bunk house, you must bring your own bedding.**

Dispersed camping is also permitted, and you must bring your own camping equipment to take advantage of that option.

You must bring your own towel, toiletries and shower shoes for the bathroom facilities.

There is no additional fee for lodging, in either the bunkhouse or your own campsite. The next closest lodging options are hotels in the cities of Richmond or Berea, approximately 30 minutes away from the venue.



Suggested Gear

- Layers appropriate for a cooler nights & air-conditioned classroom
- A personal fan (battery powered or plug-in) for your bunk bed
- Mechanix Wear or similar style utility gloves of any style/price
- Personal comfort items such as chapstick, sunglasses, etc.
- Any personal or agency wilderness medical/rescue gear you wish to test.

Required Gear

To successfully complete this course, you must bring:

- Personal food and snacks in appropriate containers (see Dining section of this guide, below)
- A set of old/cheap clothing which you would not mind being being **moulaged or destroyed**
- Headlamp capable of being aimed. Non-aimable brim-style headlamps not acceptable
- Spare batteries for headlamp
- Sunscreen
- Bug spray
- Non-slick, closed-toe footwear
- Clothing appropriate for hot and humid environments and which may get dirty
- Rain shell
- Water and portable hydration capability
- Small notebook and pen
- Shower Flip Flops
- Bedding (sleeping bag, pillow, etc)
- Personal bath towels
- Shower toiletries

Dining Information

The Maywoods Lodge is in a rural location, approximately 30 minutes from the closest significant centers of restaurants and grocery stores in Richmond and Berea. However, the Lodge features a well-equipped commercial kitchen with generous food storage, prep, and cooking equipment. A barbeque grill is also available on the rear deck.

You should plan to bring your own food and drinks to last you the week, and be prepared to make your meals in a shared cooking environment.

Your food must be clearly labeled as your own, in a container such as a large Tupperware bin, reusable shopping bags, or similar. Please bear in mind that you will be sharing refrigerator/freezer and shelf space with numerous other students.



A group kitchen/lodge cleaning schedule will be enforced. All students will take turns completing light chores each evening in order to keep the kitchen, dining, bath, and classroom facilities clean.

Typical Course Schedule

| MON | | Hrs | Format |
|------|--|------|-------------------|
| | 900 Welcome & Housekeeping | 1 | Lecture |
| | 1000 Intro to WildMed | 1 | Lecture |
| | 1100 Fundamentals of Care | 1 | Lecture |
| | 1200 LUNCH (90 mins) | | |
| | 1330 Low Resource Assessment | 1 | Practical |
| | 1430 Monitoring Techniques | 1 | Lecture/Demo |
| | 1530 BREAK | | |
| | 1545 Spinal Care | 1 | Practical |
| | 1645 Ankle Taping | 1.25 | Practical |
| | 1800 END OF DAY | | |
| | <i>Evening Bonfire, Dinner, Social Time</i> | | |
| TUES | | | |
| | 900 Hyperthermia | 1 | Lecture |
| | 1000 Hypothermia/Frostbite | 1 | Lecture |
| | 1100 Avalanche | 1 | Lecture |
| | 1200 LUNCH (90 mins) | | |
| | 1330 Patient Packaging Stations (w/training scenarios) | 3 | Practical |
| | Hypo Wraps | 0.75 | Practical |
| | Junkin Baskets | 0.75 | Practical |
| | Improvised Litters/Carries | 0.75 | Practical |
| | Skeds | 0.75 | Practical |
| | 1615 BREAK | | |
| | 1630 Airway Management | 0.5 | Lecture/Practical |
| | Surgical Crics | 0.5 | Practical |
| | SAVe II Vents | 0.5 | Practical |
| | Safe Bagging | 0.5 | Practical |
| | 1900 END OF DAY | | |
| WED | | | |
| | 900 Water Disinfection | 1 | Lecture |
| | 1000 Wound Management | 1 | Lecture |
| | 1100 Ketamine | 2 | Lecture/Practical |
| | 1200 LUNCH (90 mins) | | |
| | 1230 Hands-On Stations | 1.5 | Practical |

| | | | |
|--------------|---|-------------|-------------------|
| | Extremity Splinting | 0.75 | Practical |
| | Dislocation Reductions | 0.75 | Practical |
| 1400 | Basic Ropes | 2 | Practical |
| 1600 | BREAK | | |
| 1700 | PFC | 2 | Lecture/Practical |
| 1930 | DINNER (60 mins) | | |
| 2100 | Night Scenario | 2 | Practical |
| 2300 | Debrief | 0.5 | |
| 2330 | END OF DAY | | |
| | | | |
| THURS | | | |
| 1000 | Submersion Injuries | 1 | Lecture |
| 1100 | Animal Bites & Stings | 1.5 | Lecture |
| 1230 | LUNCH (90 mins) | | |
| 1400 | Wilderness Intubation | | Practical |
| 1500 | Medical Kits & Gear | 1 | Demo |
| 1600 | Dive Medicine | 1 | Lecture |
| 1700 | BREAK | | |
| 1715 | HEENTS | 1 | Lecture |
| 1815 | Altitude Illness | 1 | Lecture |
| 1845 | Lightning | 1 | Lecture |
| 1930 | END OF DAY | | |
| | <i>Fire on the Deck, Dinner, Social Time</i> | | |
| | | | |
| FRI | | | |
| 900 | Practical Testing Scenarios | 2 | Practical |
| 1100 | Written Exam | 1 | |
| 1200 | Graduation/End of Course/Cleanup | | |
| | | | |
| | Total CME Hours: | 42.5 | |

Instructors



David Fifer, MS, NRP, WP-C, FAWM is RedSTAR's founding Coordinator. Currently Assistant Professor of EMS & Director of the Center for Wilderness Safety at Eastern Kentucky University, David also chairs the Kentucky Board of EMS Wilderness EMS Task Force, is a member of the NAEMSP Wilderness Medicine Committee, the Wilderness Medical Society's Search & Rescue and Operational Medical committees and is a member of the Board of Directors of the Appalachian Center for Wilderness Medicine. Along with Drs. Jeff Thurman and Seth Collings Hawkins, he developed the IBSC's WP-C (Wilderness Paramedic-Certified) exam. He is a Fellow in the Academy of Wilderness Medicine, a contributing author to the textbook "Wilderness EMS," and teaches wilderness medicine around the world and to numerous local, state, and federal agencies. With Dr. Hawkins he hosts the Remote, Austere, and Wilderness (RAW) Medical podcast.

Alan Jaques, MS, NRP has been a RedSTAR provider since our founding in 2015, and retired as a Captain for Frankfort, KY Fire/EMS. A alumni of Outward Bound and Prescott College's Outdoor Adventure Leadership program, Alan formerly guided whitewater rafting on the Russell Fork. And avid triathlete himself, Alan has provided wilderness event medical coverage for numerous adventure races, including the multi-state, multi-date 361 Adventures competition in far Eastern Kentucky/Southwest Virginia as an event medical specialist for RedMed, LLC. He serves on the Kentucky Board of EMS Wilderness EMS Task Force



Walt Lubbers, MD is RedSTAR's founding Medical Director, as well as the Medical Director for Powell County EMS, Owen County EMS, and Frankfort Fire/EMS. In addition, he serves as the Kentucky Board of Emergency Medical Services State EMS Medical Advisor, responsible for statewide coordination of EMS clinical delivery. He is board-certified in emergency medicine as well as EMS, and is an attending physician for the University of Cincinnati, where he is also a flight physician in their Air Care program. Dr. Lubbers hosts the popular "EMS Grand Rounds" distributive education case review series and is a prolific speaker on high performance EMS.



Jeff Thurman, MD, FAWM is one of RedSTAR's physicians and practices emergency medicine at a community hospital in Louisville. He completed his training at the University of Louisville where he now holds a Gratis Faculty position in the Division of EMS. He is the medical director for two EMS services in Louisville, and is the medical director for this course. Jeff is also a member of the Kentucky Board of EMS Wilderness EMS taskforce, the Wilderness Medical Society's Search & Rescue committee, the NAEMSP Wilderness EMS committee, and along with David Fifer and Seth Collings Hawkins leads the global IBSC project to develop a WP-C exam. He is board certified in both Emergency Medicine and EMS. He is a Fellow in the Academy of Wilderness Medicine (FAWM) and a candidate in the Diploma in Mountain Medicine (DiMM) program. He has authored several articles on various EMS and wilderness topics.

Jeremy Urekew, NRP, TP-C lives in Kentucky's Red River Gorge, and has been a paramedic and EMS instructor for 18 years. A rock climber and one of RedSTAR's original founding members, Jeremy owns the rescue training company Red River Rescue, LLC, teaches numerous rescue disciplines at FEMA's Center for Domestic Preparedness and is a member of Powell County Search and Rescue. He helped develop RedSTAR's High Angle Medical Rescue curriculum, and has led competition rope rescue teams around the world. Jeremy is an active provider with Powell County EMS, and has extensive experience teaching austere and rescue medicine to local, state, federal, and military customers around the nation.



Additional members of the RedSTAR roster may be involved with delivering specific topics

Agreement and Waiver / Liability Release:

As a participant in the Advanced Wilderness Life Support (WLS:MP) training course, I hereby release and indemnify RedSTAR, Inc., and Powell County Fiscal Court (Releasees), their officers, agents, or employees as well as any other instructors invited by those entities, from any and all liability, claims, cost and causes of action arising out of or related to any property damage or personal injury (including death) that may be sustained by me, while participating in such activity. I acknowledge that the training course I have registered for involves physically strenuous and inherently dangerous activities in which I am capable of fully participating. I know of no physical or mental condition that would preclude my full participation in the training.

I certify that the information on this registration form is correct. I agree to abide by the rules, policies, and regulations of RedSTAR, Inc., ECU, and the WLS:MP course. I understand that falsifying information or violating rules, policies, or regulations may result in me being removed from the course, denied admission to the course, and/or loss of course credit and registration fees.

I understand that RedSTAR, Inc. and Powell County Fiscal Court is not authorized to provide travel, medical, or health insurance, and I verify that I or my agency maintain appropriate and necessary coverage of these. I understand that I or my agency will be responsible for any medical expenses that I may incur as a result of any injury or illness resulting from my participation in this program.

I understand that the nature of the tasks I may perform while involved in this training may require a moderate degree of physical fitness, agility, and dexterity, and that this may include exercises which require physical fitness, strength, and stamina. I am fully aware of the risks and hazards associated with wilderness rescue training, including but not limited to burns, cuts, abrasions, heat illness, heart attack, falls and other related injuries, and I choose to voluntarily participate in the activity with full knowledge that said activity may be hazardous to me and my property.

In signing this release, I acknowledge that I have read and understand the Release: and that I am at least 18 years of age. I am a fully competent adult and, if applicable, a member of a legally organized fire department, rescue squad, rescue related business or organization.

By registering for this course, I hereby give RedSTAR, Inc. and Powell County Fiscal Court permission to reproduce and publish my name and/or photographic likeness.

By typing my name in the Signature field, I am signing and accepting this agreement and waiver.

Printed Name

Signature

Date