

# Southwest Wilderness Medicine Expedition

## Course Description

Prepare yourself for an adventure in the extraordinary Southwest. This course takes place in the Galiuro Wilderness in Arizona. This range is considered one of many desert “sky islands,” isolated pockets of sub-alpine vegetation and forest surrounded by barren desert basins. Here, you will be among manzanita, oak, juniper, and ponderosa pine while looking out over stark desert below.

### Features

- Duration: 9 days
- Route length: 20-30 miles
- Average group size: 8-12 students / 2-3 instructors
- Minimum age: 23
- Average pack weight: 40-50 pounds
- Elevation range: 2,500-6,500 feet
- On and off-trail hiking
- Emphasis on wilderness medicine for the professional practitioner
- Outdoor Skills: outdoor and Leave No Trace travel and camping techniques, hazard evaluation, judgment and decision-making, reading topographic maps and route-finding
- Notable wildlife: birds, coyote, mountain lions, deer, fox, rattlesnakes
- Continuing Medical Education and FAWM credit available

### Overview

This backpacking expedition offers an unparalleled opportunity for physicians, physician assistants, nurses, nurse practitioners and EMTs who want to learn practical, hands-on wilderness medicine education in Arizona’s stunning Galiuro Mountains. It is an ideal opportunity for those who want to experience the realities of wilderness medicine practice and decision-making on a true wilderness expedition.

The course begins with a foundational day of wilderness medicine topics followed by an evening preparing for the backcountry. The next day will be busy packing to depart for 8 days of backpacking through the Galiuro Mountains. Throughout the expedition there will be opportunities to learn the NOLS outdoor skills curriculum including wilderness

navigation and appropriate camping principles. Core to the expedition are the themes of leadership and teamwork, both in a wilderness environment and a clinical setting. Hands-on scenarios will challenge expedition members to apply their medical and team management skills with after action debriefs and growth-oriented feedback. After a week of travel, the expedition will finish back in Tucson, Arizona with an end of course banquet and celebration.

## Syllabus

### **10/6: Wilderness Medicine for the Professional Practitioner | Backcountry Prep**

In the morning, you'll meet your instructors, have a course orientation and begin the Wilderness Medicine for the Professional Practitioner course. You will spend the day engaged in wilderness medicine classes, skills practice and scenarios. Focus will be on: wilderness patient assessment; shock; chest trauma; spine injuries and management including litter packaging; head injuries; wilderness wound management; hypothermia, frostbite and local cold injuries; heat illness and altitude illness. You'll spend the night in Tucson at the NOLS Southwest campus.

### **10/7: Backcountry Prep | Drive to the trailhead | Backpack to first camp**

After an early breakfast, you will finalize your personal equipment and pack group equipment and rations necessary for the wilderness expedition. At midday your expedition will drive approximately three hours to the trailhead and establish its first camp.

### **10/8 – 10/13: Wilderness Expedition**

Your course will begin slowly to allow you to get used to the weight of your pack, the fit of your boots, and the elevation. Initially, your instructors will focus on basic camping and travel techniques: cooking and stove use, map reading, and Leave No Trace techniques. Later, when you're ready, the group will move into more advanced topics: compass use, expedition behavior, decision making and leadership. In addition, expect to practice focused spine assessment, improvised splints, foot care and blister management, dislocation reduction techniques, and ankle taping, among other wilderness medicine skills.

You'll live with three or four other students in a "cook group" during the course. These small groups help disperse your impact on the land and enable you to master the art of backcountry living. You'll receive plenty of coaching from you instructors while you learn

new skills. Before you know it, you'll be savoring homemade pizza and cinnamon rolls—gourmet delicacies that you made from scratch and cooked over a single-burner stove. Your tent group may be single-gender or co-ed.

You'll travel in small hiking groups so you have more opportunities to lead, make decisions and practice navigation as you move through the beautiful wilderness. Hiking days begin early when you start your stove, savor a warm breakfast, and then organize your pack. Some days a wilderness medicine class will follow breakfast. You're usually hiking by mid-morning. Lunch on the trail might be cheese, crackers, or a trail mix of nuts and dried fruits. When you arrive at your new camp, you'll first spend time choosing a low-impact site and pitching your tent, engaging in medical classes and practice, and then preparing a well-deserved dinner. If the miles were long, a short evening meeting wraps up the day. If the night is still young, there may be a group discussion, campfire, or constellation-view party.

Group dynamics and leadership are integral parts of your course curriculum. Through classes on communication and conflict resolution, your group will quickly become a community with its own norms and culture. Tolerance for adversity and uncertainty, respect for others, and a willingness to work hard are critical to your success. You will become fluent with the NOLS leadership model and should expect to apply its tenets to daily experiences. The emphasis of the leadership curriculum will be on experiential learning, though you'll also be exposed to formal classes. As your group demonstrates strong interpersonal skills, your instructors will give you greater responsibility for leading yourself and your peers.

Your course has an effective instructor-to-student ratio (1:6 or less) to provide coaching and supervision. You can expect ongoing verbal coaching and feedback throughout the course.

### **10/14: Travel back to Tucson | De-issue Equipment | Banquet | Course Concludes**

After an afternoon drive back to Tucson, you will de-issue course equipment, shower and celebrate with a course-end dinner.

## **Weather and Other Challenges**

### **Weather**

The Southwest is known to host extremes in temperature and weather conditions.

**Though warm, mild weather is more typical, students should expect anything**

**from monsoon rains and extreme heat, to snow, wind and subfreezing**

**temperatures.** Sometimes these weather changes occur in a matter of minutes, other times storms or cold temperatures can last for days. Subfreezing temperatures are common, especially at night. Please make sure you bring the appropriate gear from our equipment list to help you keep warm in these conditions. There may be times when you are cold, wet and tired, but you'll learn to manage these situations. You might even find yourself smiling while you do. In time, your own adaptation to varied conditions will help you understand and appreciate the remarkable flora and fauna that make the Southwest such a special environment.

**Terrain**

All areas in which you will travel are rugged mountain ranges, characterized by deeply incised canyons, steep slopes, rocky terrain, and sheer cliffs. Travel in the backcountry can at times be exclusively off-trail, requiring constant attention to route-finding. The rock can be loose and easily breakable and various species of cactus and other plants with sharp spines can be dense, occasionally adding to the challenge of hiking.

**Wildlife**

The Southwest is home to rattlesnakes and other potentially harmful insects, reptiles, and mammals. The area your course will travel through is home to black bears. NOLS, in collaboration with bear biologists, has developed specific practices to minimize the risk of a bear encounter. Your instructors will teach these practices to you and you will have to follow them every day. Bear avoidance practices may include carrying bear deterrent pepper spray, meticulously maintaining cleanliness at the cooking sites, not having food in tents, and practicing proper food storage.

An important part of the curriculum is learning to be aware of your surroundings and being able to identify these hazards in order to reduce the chance of injury.

**Remoteness**

For the duration of your course, you'll be many miles from the amenities of civilization. Telephones, ambulances, and hospitals may be days away. All NOLS instructors maintain wilderness medicine certifications and are equipped with well-stocked first aid kits to provide care in the event of an emergency.

### **Water Scarcity**

Water is the life-blood of the Southwest. Your hiking routes are typically designed to go from one water source to another. These water sources are either mountain streams, man-made “tanks,” or naturally occurring pools found deep in the clefts of rocks. Often water sources are many miles apart, and it may be necessary to carry a day’s supply of water between camps. The Southwest has been experiencing drought conditions over the past several years. If water shortage, or conversely, flooding, dictates a change, the location for any backcountry portion of this course might be moved to another wilderness area.

### **Group dynamics**

You will be living and working in a small and diverse community around the clock in sometimes difficult conditions. This will require the utmost in cooperation, patience, and humility. We will strive to create an inclusive space for the entire group. Please recognize that the success of the expedition as a whole is entirely dependent on the ability of its members to support one another in trying circumstances. Working together towards a common vision can be one of the most rewarding and memorable aspects of any NOLS course.

### **Pre-Course Self-Study**

To help you prepare for your upcoming Wilderness Medicine Expedition, please read the articles in the required reading section.

<https://www.nols.edu/portal/wmi/courses/14654/>

### **Certifications and Continuing Education Credits**

Successful completion of the course provides a certificate of completion of a Wilderness Medicine for the Professional Practitioner ([WMPP](#)) course.

#### *FAWM credits*

Active members of the Wilderness Medicine Society (WMS) may earn up to 28 hours of credit towards a Fellowship of the Academy of Wilderness Medicine (FAWM).

([www.wms.org/fawm](http://www.wms.org/fawm))

### *For physicians, physician assistants*

Through joint sponsorship with the Wilderness Medical Society, eligible medical professionals may earn 15 hours of category 1 CMEs for participation in a Wilderness Medicine Expedition. [1]

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[1] *This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the Wilderness Medical Society and NOLS Wilderness Medicine. The Wilderness Medical Society is accredited by the ACCME to provide continuing medical education for physicians. The Wilderness Medical Society designates this educational activity for a maximum 15 hours of AMA PRA Category 1 Credits™. Each physician should only claim credit commensurate with the extent of his or her participation in the activity. NOLS Wilderness Medicine is a non-profit educational organization that is not, in any of its activities, sponsored by any proprietary entity.*

### *For EMTs*

This course is pre-approved for 16 hours of EMT Continuing Education Hours (CEH) by the Commission on Accreditation for Prehospital Continuing Education ([www.capce.org](http://www.capce.org)) [2]

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[2] *CAPCE is an organization established to develop and implement policies to standardize the review and approval of EMS continuing education activities. Cosponsoring organizations of CAPCE are the National Association of Emergency Medical Technicians, the American College of Emergency Physicians, the National Association of Emergency Medical Services Physicians, the National Association of State Emergency Medical Services Directors, the National Council of State Emergency Medical Services Training Coordinators, the National Registry of Emergency Medical Technicians, the National Association of EMS Educators and the American College of Osteopathic Emergency Physicians.*

## **Instructors**

Your instructors are senior faculty skilled in teaching both the NOLS core curriculum and wilderness medicine curriculum. These instructors have been selected for their background in wilderness leadership, urban and wilderness pre-hospital care, and ability to work with a range of audiences. Above all, they are excellent educators.

## **Course Objectives**

NOLS takes great pride in providing quality experiential education on all its courses. Unlike a classroom, expeditions are influenced by weather, terrain, and the group's health, as well as its skills, experience, and ability. In short, we can't script our courses. Upon completion of the Wilderness Medicine Expedition, we expect students to be able to do the following in a wilderness setting:

- Perform a patient assessment; manage life threats and scene safety
- Manage head, spine, and musculoskeletal injury with minimal equipment

- Manage emergencies due to heat and cold
- Understand the utility and limits of advanced life support (ALS) in the wilderness
- Prepare a reasonable pack with essential medical and personal gear for 24 hours in the wilderness
- Organize, lead, and participate in a simulated wilderness litter evacuation
- Dress appropriately for inclement weather
- Cook nutritious meals using a camp stove and field rations
- Demonstrate campsite selection and shelter use skills
- Navigate mountain terrain with map, compass, and GPS
- Travel off-trail in mountainous terrain
- Consistently perform sound Leave No Trace camping skills
- Demonstrate the basic ability to manage risks, including rock fall, steep terrain, stream crossings, animal encounters, lightning, and adverse weather
- Demonstrate sound expedition behavior, including teamwork, support of group decisions and have a positive attitude during adversity; show leadership with peers using styles appropriate to the situation; and demonstrate sound judgment and decision making

## Personal Electronics

Integral to every NOLS course is the splendid isolation of wilderness. NOLS does not permit students to use smart phones, satellite phones, or other communication devices (including personal tracking devices, such as SPOT, InReach) while in the field.

Additionally, students are not permitted to use smartphones as digital cameras or use tablets, other than a black & white e-reader. If you wish to take photos on your course—and we hope you will!—please bring a 35mm or dedicated digital camera.

Instructors carry communication equipment, including personal locator beacons (PLBs) and satellite phones, to handle emergencies that may arise.

## Student Independence

Both in town and in the field, you will be independent (unaccompanied by instructors) at various times. While in Tucson, on the road, and in the field, you are expected to always adhere to NOLS's drug, alcohol, and tobacco policies, and to comport yourself in a respectful, responsible way.

## Course Tuition

The course tuition is **\$2,425**. This includes lodging 10/6 – 10/13; transportation during the course; instruction and materials; 15 hours of category 1 CMEs or 16 hours of EMT CEUs, and up to 28 hours credit towards the Fellowship of the Academy of Wilderness Medicine; permit fees; meals, expedition rations and final course banquet; group camping gear (shelters, stoves, etc.). It does not include travel to Tucson, personal equipment purchase or rental, or lodging on 10/5 or 10/14.

A \$500 deposit is required to enroll in the course. Payment in full is welcomed. You can pay your balance by mailing in a check with the Course Statement and prerequisites, calling the office with Mastercard or Visa credit card information, or online through your [nols.edu account](https://nols.edu).

If you do not have an online course account with NOLS, you can create one. The deadline to submit payment for the balance of course fees is 60 days prior to the course start date. If you are registering after this deadline, please call the NOLS Wilderness Medicine Office at (866) 831-9001 so we may assist you.

## NOLS Wilderness Medicine Cancellation Policies

- If you cancel or leave a course for any reason:
  - Between 60 and 46 days prior to the course starting date, NOLS will retain 50% of total course tuition.
  - Less than 45 days prior to course start date and once the course has begun, there will be no refunds.
- Participants will be required to reimburse NOLS for the expenses incurred in evacuating them from the course.
- Although we rarely need to do so, we reserve the right to cancel a course or change a course duration, tuition or location. NOLS is not responsible for associated costs in these cases.

## Tuition Protection Program

NOLS offers a Tuition Protection Plan, provided by AON Affinity, for citizens of the USA and Canada who meet certain legal residence requirements at a cost of six percent of the total tuition. The plan helps to protect against tuition loss should you be unable to participate or complete your WME course due to an injury or illness to yourself or your immediate family. Additionally, this plan may help to pay for evacuation costs from the



course location. The Tuition Protection Plan payment is non-refundable and not transferable.

NOLS strongly recommends the Tuition Protection Plan to safeguard your investment in tuition.

## Scholarships and Financial Aid

- NOLS Wilderness Medicine offers a limited amount of scholarship assistance for students in our WME courses. Scholarship aid is available to applicants who show great potential to excel as NOLS Wilderness Medicine students and who would be unable to attend without financial aid. The typical award ranges between \$500 and \$1,000. Students must pay a \$500 deposit and register for a WME course before their application will be considered. For more information, visit the [Scholarship section](#) of our webpage.
- AmeriCorps Education Awards and 529 College Savings Plans can be applied toward WME courses. For more information, visit the [AmeriCorps Awards and 529 Plans section](#) of our webpage. You should take this step at least 60 days prior to your course start date.
- If you currently receive federal financial aid and you are interested in applying it toward your WME course, please review this [information](#) and contact the Admissions Office at [wilderness\\_medicine@nols.edu](mailto:wilderness_medicine@nols.edu) or (866) 831-9001.

## For More Information

**Questions?** Contact NOLS Wilderness Medicine via phone 8:00 a.m. – 5:00 p.m. MST Monday – Friday at (866) 831-9001 or via email at [wilderness\\_medicine@nols.edu](mailto:wilderness_medicine@nols.edu).

## Learning Goals at NOLS

NOLS courses teach wilderness and leadership skills on expeditions and in classrooms. Our students apply these skills to challenges in a supportive learning environment with high expectations. Students have the opportunity for a positive, transformational experience and leave our courses inspired and empowered to act.

We craft NOLS courses so that graduates will be able to assume leadership roles; live and travel in the outdoors; act with confidence and competence; respect and collaborate with others on expeditions, teams and communities; care for themselves and others; understand their habits, strengths and areas for growth; function under difficult

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circumstances; make informed and thoughtful decisions; communicate effectively and manage conflict; and appreciate living simply.

*We believe positive, ethical leaders change the world. Join NOLS and become one of these leaders.*