

Wilderness Medicine

Location: Kaweah Health Medical Center/Sierra Nevada Mountains **Revised** [8/21/2025]

Clerkship Director:

Dr. Jose Orozco

EM Faculty:

Dr. Jing Liu

MS COORDINATOR:

PHONE #

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PREREQUISITE: Kaweah Delta Clearance

DURATION: 2 weeks

DATES OFFERED:

Winter Dates:	1/26/26-2/6/26
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COURSE OBJECTIVES:

Wilderness medicine encompasses the diagnosis and improvised treatment of patients with routine or exotic illnesses/trauma in an austere environment.

Wilderness medicine also encompasses trip preparation, field triage, assessment, treatment, stabilization, and evacuation. Wilderness medicine deals with multiple terrains, environments and seasons. The primary goal of the wilderness medicine rotation is to allow the rotating medical students to effectively identify, evaluate, and manage such emergencies in a resource-limited environment.

SUPERVISION:

Dr. Jing Liu

NUMBER OF STUDENTS: Maximum of 12 students

VISITING STUDENTS: Yes

ADDITIONAL INFORMATION: Fee: An additional \$300 fee is required to fund excursion-related expenses including meals, equipment, guest lecturers, and venues. Rotating students will receive a list of needed equipment for the rotation.

DESCRIPTION:

Course Overview

This two-week elective introduces medical students to the diagnosis, management, and improvised treatment of illness and trauma in austere environments. Students will learn through didactics, simulation, and field immersion in the Sierra Nevada mountains. Topics include scene safety, patient stabilization, evacuation, ballistic medicine, and adapting to environmental challenges (cold, heat, altitude, water, and wilderness terrain).

Week 1: Classroom instruction & simulation

Week 2: Field-based camping, rescue scenarios, and practical training

Core Topics

- Environmental Medicine: Heat and cold injuries, frostbite, hypothermia, lightning, high altitude illness, drowning
- Trauma & Emergencies: Mass casualty triage, musculoskeletal/spinal injuries, head/eye/dental trauma, thoracic/abdominal trauma, wounds & burns
- Bites, Stings, & Plants: Envenomations, anaphylaxis, poisonous plant exposure
- Survival Skills: Orienteering, shelter building, food & water safety, transport & evacuation, search & rescue

- Global/Travel Medicine: Infectious diseases, vaccines, travel hazards
- In-Flight Emergencies: Use of onboard kits, medico-legal considerations
- Ballistic Medicine & Gun Safety: Principles of hemorrhage control, wound stabilization, and evacuation priorities in firearm injuries
- Improvised and Definitive Care: Use of tourniquets, hemostatic agents, and airway management in penetrating trauma
- Gun Safety & Prevention: Firearm handling basics, safe storage, and injury prevention strategies in wilderness and domestic settings

Teaching Methods

- Experiential learning (procedures under supervision)
- Didactics & simulation labs
- Field immersion (3–4 days camping/rescue scenarios)
- Independent reading

Evaluation

- Score a 76% on the written end-of-rotation test and practical skills test, and/or presentation on a wilderness topic of the student's choice.

***Selective Attendance and Illness Policy**

In order to insure adequate clinical exposure, no more than 3 days of excused absences, including interview days can be accepted during your rotation. While excused, these days must be made up. This policy does not imply that absences are guaranteed; absences may be excused at the discretion of the faculty. Absence due to illness must be reported to the Coordinator as well as the faculty or his/her designee as soon as possible. In case of extended absence (2 days or more), a note from a physician (who is not a relative) is required and the absence will be reported to the Office of Student Affairs. A physician note may be requested for any absence, at the discretion of the faculty. **Any planned absence must be registered with the coordinator prior to the first day of the rotation.** Further attendance requirements may be covered during the first day orientation.