



Semester in Wilderness Medicine University of Montana Course Credits

Emergency Medical Technician and Incident Management – 5 credits **ECP 332 (Emergency Care Provider) – credits apply to all semester programs**

This course follows the Department of Transportation's National Registry of EMTs (NREMT) curriculum and is approved by the NREMT and the State of Montana Board of Medical Examiners. In addition, our EMT and Incident Management course goes into significantly more detail concerning management of patients in both mass-casualty incidents as well as during extended rescue and evacuation scenarios. This course is ideal for outdoor leaders involved in extended backcountry trips and those individuals seeking employment with ambulance services, search and rescue units, ski patrols and wilderness trip leading organizations, in particular those operating eco-tourism trips abroad.

In addition to the standard DOT curriculum, students will learn anatomy and physiology in a human cadaver lab and participate in vehicle extrication practice with professional firefighters. Students spend 24 hours riding on an ambulance and observing in a hospital emergency department to complete their clinical experience.

This course will provide students first-hand experience in managing emergency incidents, whether in the role of rescuer or incident management leader. An overnight rescue scenario in conjunction with Missoula County Search and Rescue completes the suite of practical experiences and will hone students' ability to implement the nationally recognized incident management system.

Upon completion of ECP 332, students will be able to do the following:

- Assess patients for both injury and illness and provide thorough documentation
- Accurately take vital signs and understand their significance for patients
- Correctly administer oxygen using bag valve masks and airway adjuncts, and suction devices
- Effectively control bleeding and manage shock in trauma patients
- Effectively immobilize patients to prevent or manage spinal injury
- Assess medical emergencies and provide stabilization for medical patients during transport
- Effectively use a variety of traction devices as well splints for long bones and joints
- Operate AEDs and manage cardiac emergencies in the field



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Wilderness Rescue and Survival Skills - 5 credits – *credits apply to all semester programs PTRM 356 (Parks, Tourism & Recreation Management)*

This course is ideal for outdoor leaders involved in extended backcountry trips and those individuals seeking employment with search and rescue units, ski patrols and wilderness trip leading organizations, including those operating eco-tourism trips abroad. This course emphasizes skills as well as necessary background medical knowledge in wilderness rescue and survival. Students will be prepared to handle emergencies in high-elevation, winter, tropical and swiftwater environments, depending on the Semester.

Students successfully completing the course will be awarded certifications in Swiftwater Rescue Technician, Rope Rescue Technician during the Summer Semester, and Level I Avalanche during the Spring Semester. The Fall Semester student will receive Rope Rescue Technician and Search and Rescue certification. They will also be prepared for extended care of patients and rescuers in remote and challenging environments.

The Spring, Summer, and Fall Semesters differ primarily in that Level 1 Avalanche can only be taught during the Spring and will be replaced by Rope Rescue Technician during the Summer and Fall Semester.

Major course topics include the following:

- **Spring, Summer Fall Semester** Navigation instruction and scenarios, including landform interpretation of maps and use of map rulers to determine lat/long and UTM coordinates, use of compass, and GPS
- **Spring & Summer Semester** 3 days of Swiftwater Rescue training taught by the Whitewater Rescue Institute
- **Spring Semester only** 3 days of Level I Avalanche taught by West Central Montana Avalanche Center at a backcountry yurt in the Swan Mountains
- **Spring Semester only** Tropical survival skills training taught by a professional guide with Coast to Coast Adventures, an adventure travel company in Costa Rica
- **Spring and Fall Semester** Winter survival skills training on an overnight camping trip prior
- **Summer & Fall Semester** Mountain survival skills
- **Summer & Fall Semester** 5 days of Rope Rescue Technician emphasizing techniques of rope rescue and decision-making when managing scenes
- **Fall Semester only** Students will have extended experiences with international health and disaster management while in rural India.



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An overnight rescue scenario in conjunction with Missoula County Search and Rescue team, as well as training in rescue helicopter operations with St. Patrick Hospital's LifeFlight medics, complete the suite of practical experiences.

Upon completion of the WRSS course, students will be able to do the following:

- Prevent and respond to swiftwater emergencies
- Navigate effectively in the backcountry using knowledge and skills in reading and following compass bearings, an in-depth understanding of terrain based on topographic maps, and use of GPS technology
- Construct improvised shelters, build and maintain fires, treat water to make it potable, use appropriate signaling techniques
- Work safely and effectively to conduct a helicopter rescue, including appropriate communications with air ambulance personnel and creating safe landing zones
- Understand and apply search and rescue techniques to locate lost victims
- **Spring Semester only** Prevent and respond to avalanche emergencies
- **Summer Semester only** Safely conduct rescue operations using high- and low-angle rope rescue techniques

Wilderness Medicine and Risk Management - 5 credits PTRM 355 (Parks, Tourism & Recreation Management)

– credits apply to all semester programs

This course will train students in injury and illness prevention in a backcountry setting while emphasizing risk management principles. The course also trains students in the treatment and long-term management of medical emergencies in the backcountry, including improvised litters and splints. Instructors cover decision making involved in dislocation reduction, medication administration, and evacuation protocols. Risk management topics include participant screening, emergency response plans, risk matrices, and incident reporting.

Upon completion of the WMRM course, students will be able to do the following:

- Both prevent and respond with appropriate medical treatment to injury and illness in a backcountry setting
- Manage long-term care for injured or ill patients in the backcountry, including creating improvised litters and splints
- Plan for and execute evacuation from the backcountry
- Understand effective screening procedures for participants in backcountry pursuits
- Create and follow Emergency Response Plans
- Develop risk matrices for outdoor programs
- Analyze incident reports and create plans for improving risk management in outdoor programs