

ADIRONDACK COMMUNITY COLLEGE  
ADVENTURE SPORTS:  
LEADERSHIP AND MANAGEMENT

**COURSE:** HED 108 Wilderness First Responder

**COURSE DESCRIPTION:**

An intensive professional certification course designed to develop standards of practice for outdoor professionals providing pre-hospital backcountry first response and emergency medical care in remote environments. Designed to provide outdoor professionals with the medical knowledge and skills needed to deal with medical emergencies in isolated settings, this course prepares outdoor leaders to make critical medical and evacuation decisions in remote locations.

**PREREQUISITE:** None

**CREDIT HOURS:** Lecture: 2 hrs. Lab: 3 hrs. Credit: 3 hrs.

**COURSE OBJECTIVE:** Students will:

1. demonstrate professional competency in wilderness and remote first response, cardiopulmonary resuscitation (CPR), and automated external defibrillator (AED)
2. demonstrate an understanding of human anatomy and physiology
3. interpret liability and safety standards
4. assess risk and hazards
5. apply medical first response skills
6. demonstrate proficient use and selection of rescue equipment
7. practice proactive prevention techniques, accident prevention, and rescue techniques

**COURSE TEXTS:**

Wilderness First Responder Course Packet

Tilton, Buck. Backcountry First Aid and Extended Care. Connecticut: Globe Pequot Press. 1998.

**COURSE CONTENT:**

- I. Introduction
  - A. Wilderness First Responder vs. Urban First Responder
  - B. Role of the WFR
  - C. Medico legal issues
  - D. Blood born pathogens & infectious disease
- II. Patient Assessment System (PAS)
  - A. Patient Assessment System
  - B. Anatomy of a Backcountry Crisis
  - C. Primary Survey= "the first five minutes"
  - D. Secondary survey & vital signs
  - E. History Taking and AMPLE
  - F. Lifting and moving techniques
  - G. PAS in the extreme environment
- III. Rescues
  - A. Organizing the rescue
  - B. SOAP note and getting help

- C. The Ten Essentials
- D. Bivouac skills and practice
- E. Overview of the human physiology
- F. Body Systems – overview of human anatomy and physiology
- IV. The Cardiovascular System
  - A. The Anatomy and Physiology of the cardiovascular system
  - B. Cardiopulmonary Resuscitation (CPR)
  - C. Prudent Heart Living
  - D. Techniques of CPR
  - E. CPR Skills
  - F. CPR considerations in the remote environment
  - G. Automated External Defibrillation
- V. Soft Tissue Injury
  - A. Shock & bleeding control
  - B. Long term management of the shock victim
  - C. The anatomy and physiology of the integumentary system
  - D. Soft tissue injuries & bandaging skill
  - E. Long term wound care
  - F. Burns
- VI. The Musculoskeletal System
  - A. The anatomy and physiology of the musculoskeletal system
  - B. Sprains and strains
  - C. Fractures & splinting techniques
  - D. Dislocations and reduction techniques
  - E. Splinting practice
- VII. The Central Nervous System
  - A. The anatomy and physiology of the central nervous system
  - B. Head trauma
  - C. Spinal cord injury
  - D. Spinal cord management: Improvised collar, long boarding, litter packing
- VIII. The Chest and Abdominal Systems
  - A. The anatomy and physiology of the respiratory system and cardiothoracic region
  - B. Chest Trauma
  - C. The anatomy and physiology of the gastrointestinal and genitourinary system
  - D. Abdominal trauma
- IX. Environmental Emergencies
  - A. The Human Animal
  - B. Heat related injuries
    - 1. dehydration, heat exhaustion, heat cramps and heat stroke
  - C. Cold related injuries
    - 1. hypothermia, frostbite and non-freezing cold injuries
  - D. Lightning related injuries
  - E. Drowning related injuries
- X. Animals, Plants and Allergies
  - A. Animals that bite and sting
  - B. Plants that bite and sting
  - C. Allergic reactions
    - 1. Local, systemic & anaphylactic
    - 2. Use of epinephrine

- D. Altitude Related Injuries
- XI. Medical Emergencies and Patient Assessment
  - A. Changes in Level of Consciousness (LOC)
  - B. Diabetic Emergencies
  - C. Chest pain
  - D. Shortness of breath
  - E. Emergency Childbirth
  - F. Poisoning
  - G. Abdominal Pain
  - H. Group Preventative Medicine
  - I. Water purification
  - J. Sanitation/Defecation
- XII. Long-term Patient Care
  - A. Wilderness stabilization and bivouac
  - B. Improvising litters
- XIII. Leadership in a backcountry emergency
- XIV. Mock Rescue

**ADDITIONAL RESOURCES:**

Bowman, Warren. Outdoor Emergency Care. Jones and Bartlett Publishers. 2002.

Forgey, W. Wilderness Medical Society Practice Guidelines. Indiana: ICS Books. 1995.

National Association of Search and Rescue. Introduction to Search and Rescue.  
Chantilly, VA: National Association for Search and Rescue. 1999.

Walbridge, C. and Sundmacher, W.A. Whitewater Rescue Manual. Camden, ME:  
Ragged Mountain Press. 1995.

Weiss, Eric A. A Comprehensive Guide to Wilderness and Travel Medicine. Partners  
Publisher Group. 1998.

**ADDITIONAL INFORMATION:**

With or without reasonable accommodation, all students must be able to:

- Navigate difficult and varying terrain in the mountain, aquatic, challenge course, and alpine environments.
- Lift and carry heavy loads that often exceed 50lbs. over difficult and strenuous terrain.
- Walk, paddle, climb, and hike long distances carrying substantial weight.
- Assist in rescue efforts which may include lifting, climbing and carrying substantial weight over difficult and varying terrain.

Under Section 504 of the Rehabilitation Act of 1973, a post-secondary student with a disability who is in need of academic accommodations or auxiliary aids is required to notify the College of the nature of the disability and to provide appropriate documentation which supports the request for reasonable accommodations or auxiliary aids.

Individuals who would like to self-identify with a disability (and have not already) or think they may have a disability and want to request accommodations should contact the

Office of Accessibility Services directly in Warren Hall, or call 743-2282 / (TTY) 743-2323 for an appointment.