

## Crafton Hills College Course Outline

1. **Discipline:** Emergency Medical Services

2. **Department:** Emergency Services

3. **Course Title:** Outdoor Emergency Care

4. **Course I. D.:** EMS 039

5. **Prerequisites:** None

**Corequisites:** None

**Departmental Recommendations:** None

6. **Semester Units:** 5.75

7. **Minimum Semester Hours:**

**Lecture: 80      Lab: 40      Clinic:      Field:**

8. **Need for the Course:**

Specific courses and training following the guidelines of the National Ski Patrol are required for ski patrol workers, both paid and volunteer. Currently, the courses are not offered in locations which are convenient to those workers in the neighboring mountain areas.

9. **Goals for the Course:**

1. To respond to the college mission of providing relevant occupational classes and programs.
2. To respond quickly to community requests for specific courses.
3. To provide required education for students who wish to learn the skills of ski patrol medial rescuers.
4. To provide required continuing education for certified ski patrol medical rescuers.
5. To provide outdoor emergency care courses which may not be mandatory, but are of interest to current ski patrol employees or to citizens who have an interest in ski patrol skills.

- 10. Catalog Description:** Comprehensive emergency care training applied to the outdoor environment. Covers environmental effects on humans, patient assessment, respiratory and circulatory impairment, bone and joint injuries, and ski injuries. Complies with National Ski Patrol training requirements for Ski Patrol candidates. Associate Degree Applicable. This course is offered Credit/No Credit only.
- 11. Entrance Skills:**
- A. Requisite skills: None
  - B. Recommended skills: None
- 12. Course Objectives:** Upon completing this course, students will be able to:
- A. Identify the survival requirements of the human body.
  - B. Explain how the outdoor environment effects the major systems of the body.
  - C. Identify methods of adapting to functioning in the outdoor environment.
  - D. Identify anatomical descriptive terms
  - E. Describe the functions of the nine major systems of the human body and how they interact in the healthy body.
  - F. Identify the components of vital signs and other signs obtained through patient assessment.
  - G. Explain the importance of body substance isolation when using equipment
  - H. Identify techniques that allow contact with body fluids.
  - I. Explain basic assessment techniques including first impression, primary, primary and secondary surveys.
  - J. Identify the body's need for oxygen.
  - K. Explain the use of oxygen systems and other mechanical aids to resuscitation.
  - L. Describe the types and causes of bleeding.
  - M. Describe the types of shock.
  - N. List and describe closed and open soft tissue injuries.
  - O. Describe the three degrees and classifications of thermal burns, and their significance.
  - P. Define the terms dressing and bandage.
  - Q. Explain the general principles of emergency care for musculoskeletal injuries.
  - R. Name the types of splints and explain the general principles of their application.
  - S. Distinguish between various types of trauma and their implications.
  - T. Describe the principles of emergency care for upper extremity injuries.
  - U. Describe the principles of emergency care for lower extremity injuries.
  - V. List possible causes of unresponsiveness and appropriate emergency care.

- W. Describe appropriate emergency care for a responsive patient with head, eye, face and throat injuries.
- X. Describe characteristics of spine and spinal cord injuries.
- Y. Describe signs and symptoms of common types of chest injuries.
- Z. Describe signs and symptoms of injuries to the abdomen, pelvis, and genitalia.
- AA. Describe the general principles of emergency care for patients with common medical complaints.
- BB. Describe the general principles of emergency care for patients with common medical emergencies.
- CC. Describe the emergency care measures as necessary for cases of environmental emergencies.
- DD. Describe techniques for obtaining access to, extricating, transferring, packaging, and transporting patients who may be found in remote areas, unstable positions, and/or awkward positions.
- EE. Describe basic types of ski accidents and common injuries resulting from each accident type.
- FF. Describe the correct approach to an accident scene with a rescue toboggan.
- GG. Explain the purpose and use of the triage process.
- HH. Describe the causes of and the general emergency care for illness and injuries from poisoning
- II. Describe the handling and treatment for newborn, and mother prior to, during, and following a normal out-of-hospital childbirth.
- JJ. Demonstrate:
  1. layering principles using typical ski clothing
  2. techniques for taking and recording vital signs.
  3. use and disposal of personal protective equipment.
  4. basic assessment techniques as they pertain to an unresponsive and responsive patient.
  5. basic techniques used for oxygen administration.
  6. use of pocket masks, mouth shields, oral airways, and suction devices.
  7. emergency care techniques for controlling external and internal bleeding.
  8. appropriate care techniques for controlling external and internal bleeding.
  9. appropriate care for shock.
  10. basic emergency care techniques for burns.
  11. basic techniques of applying dressings and bandages.
  12. basic emergency care techniques for open and closed soft tissue injuries.
  13. techniques for long spine board immobilization.
  14. techniques for traction splint immobilization.
  15. inspection of an accident scene and reconstruction of the probable sequence of events.

16. appropriate assessment and emergency care for sprains, dislocations, and fractures of upper extremities.
17. appropriate assessment and emergency care for sprains, dislocations, and fractures of lower extremities.
18. assessment techniques for a patient with a head injury.
19. basic techniques of emergency care for an unresponsive patient.
20. appropriate emergency care of a patient with suspected spine or spinal cord injuries.
21. basic techniques for emergency care of a patient with injuries to the chest.
22. basic techniques of emergency care for a patient with specific injuries to abdominal and pelvic areas.
23. assessment and management of common medical complaints.
24. assessment and management of common medical emergencies.
25. obtaining a relevant medical history from a responsive patient.
26. properly prioritizing treatment of multiple injuries and/or multiple patient situations.
27. assessment and management of environmental emergencies.
28. performance of emergency and non-emergency patient moves, lifts, and carries.
29. extricating or moving an injured person from a difficult or confining location.
30. loading an injured skier into a toboggan and securing the patient.
31. applying the four color-coded categories to a multiple-casualty incident.

**13. Representative texts and instructional materials:**

Outdoor Emergency Care, 2<sup>nd</sup> edition, National Ski Patrol  
 Winter Emergency Care, Study Book, National Ski Patrol

**14. Course content:**

- A. Adapting to the Outdoor Environment
  1. survival requirements
  2. effects of the major body systems
  3. methods of adapting
  4. nutrition and physical conditioning
- B. Overview of Human Anatomy and Physiology
  1. anatomical descriptive terms
  2. functions of major body systems
- C. Surface Anatomy and Vital Signs
  1. body landmarks
  2. vital signs
  3. infectious control and universal precautions
- D. Patient Assessment and Life Support Techniques

1. assessment techniques
  2. assessment interpretation
  3. documentation of vital signs
  4. importance of universal precautions
- E. Oxygen and Types of Respiratory System Support
1. respiratory system
  2. artificial ventilation and CPR
  3. importance of oxygen and its use
  4. oxygen administration
- F. Bleeding and Shock
1. circulatory system
  2. types and causes of bleeding
  3. types and treatment of shock
- G. Skin and Soft Tissue Injuries, Burns and Bandaging
1. structure and function of the skin and muscles
  2. closed and open soft tissue injuries
  3. degrees and classifications of thermal burns
  4. emergency care of burns
  5. chemical and electrical burns
  6. techniques of applying dressings and bandages
- H. Bone and Joint Injuries
1. characteristics of sprains, dislocations and fractures
  2. signs, symptoms and care of fractures
  3. dislocations
  4. principles of splinting
- I. Mechanisms and Patterns of Injuries
1. trauma and laws of physics
  2. types of trauma and their implications
- J. Specific Injuries to the Upper Extremity
1. assessment and emergency care for sprains, dislocations and fractures
  2. immobilization techniques
- K. Specific Injuries to the Lower Extremity and Pelvis
1. signs and symptoms
  2. assessment and emergency care
  3. immobilization techniques
- L. Injuries to the Head, Eye, Face and Throat
1. skeletal and nervous system
  2. signs and symptoms, assessment and emergency care
- M. Injuries to the Neck and Back
1. characteristics of spine and spinal cord injuries
  2. signs and symptom, assessment and emergency care
- N. Chest Injuries
1. causes and mechanisms
  2. open and closed injuries

3. signs and symptoms, assessment and emergency care
- O. Injuries to the Abdomen, Pelvis, and Genitalia
  1. types and causes of injuries
  2. signs and symptoms, assessment and emergency care
- P. Common Medical Complaints
  1. respiratory, chest pain, urinary and reproductive, and gastrointestinal complaints
  2. signs and symptoms, assessment and emergency care
- Q. Medical Emergencies
  1. coronary disease, stroke, diabetes, epilepsy, carbon monoxide poisoning, substance abuse
  2. signs and symptoms, assessment and emergency care
- R. Environmental Emergencies
  1. frostbite, hypothermia, heat illness, altitude and solar radiation, sunburn, windburn, snowblindness, lightning and electrical injuries, avalanche injuries
  2. signs and symptoms, assessment and emergency care
- S. Advanced Assessment
  1. general principles
  2. medical history
  3. assessment techniques
  4. multiple injuries and multiple patients
- T. Extrication and Transportation
  1. obtaining access
  2. principles of rescue and extrication
  3. process of extrication
  4. patient moves, lifts and carries
  5. emergency moves
  6. special equipment and transportation issues
- U. Ski Injuries
  1. types of common injuries
  2. safety aspects
  3. prevention
  4. rescue toboggan
- V. Triage
  1. triage process
  2. color-coded categories
  3. multiple casualty incident management
- W. Other Emergency Care Situations
  1. poisoning
  2. water injuries
  3. out of hospital childbirth

**15. Methods of Instruction:**

Lecture, Demonstration, Return demonstration, Videos

EMS 039

Page 6 of 7

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**16. Assignments and Methods of Evaluation:**

Course will be credit/no credit only.

Objective examinations	10% to 50%
Skills examinations	10% to 50%
Class Discussion	10% to 20%
Problem Solving Exercise	20% to 40%