

**J. Sargeant Reynolds Community College  
Course Content Summary**

**Course Prefix and Number:** EMS 137

**Credits:** 1

**Course Title:** Trauma Care

**Course Description:** Prepares the student to assess and manage injured patients, developing his/her problem-solving ability in the treatment of trauma involving various body systems.

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128. Corequisite: EMS 138. Lecture 1 hour per week.

**General Course Purpose:** The purpose of this course is to introduce the student to a variety of common traumatic injuries, including pathophysiology, signs, symptoms, and treatments.

**Course Prerequisites and Co-requisites:**

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128

Corequisite: EMS 138

**Student Learning Outcomes:**

Upon completing the course, the student will be able to

- a. Identify types of chest injuries, assessment, and treatment;
- b. Identify types of abdominal injuries, assessment, and treatment;
- c. Discuss the care of a patient suffering from an amputation;
- d. Describe the assessment and treatment of a patient with a pelvic fracture;
- e. Explain the pathophysiology, assessment, and treatment of a patient with compartment syndrome;
- f. Identify types of soft tissue injuries, assessment, and treatment;
- g. Identify types of burns, assessment, and treatment;
- h. Identify types of facial injuries, assessment, and treatment;
- i. Explain the pathophysiology, assessment, and treatment of a patient with a laryngotracheal injury;
- j. Identify types of brain injuries, assessment, and treatment;
- k. Describe the kinetics of trauma and related injury patterns; and
- l. Identify types of environmental injuries, assessment, and treatment.

**Major Topics to Be Included:**

- a. Chest Injuries
  - Traumatic aortic disruption
  - Pulmonary contusion
  - Blunt cardiac injury
  - Hemothorax
  - Open pneumothorax
  - Simple pneumothorax

- Tension pneumothorax
  - Cardiac tamponade
  - Rib fractures
  - Flail chest
  - Commotio cordis
- b. Abdominal Injuries
- Closed abdominal trauma
  - Penetrating/Open abdominal trauma
  - Considerations in abdominal trauma
- c. Amputations
- Location of amputation
  - Tearing versus cutting amputations
  - Assessment of amputated part
  - Care of the amputated part
  - Use of tourniquets
- d. Pelvic Fractures
- Types of fractures
  - Pelvic instability
  - Specialized pelvic immobilization devices
  - Management of blood loss
- e. Compartment Syndrome
- Pathophysiology of injuries resulting in compartment syndrome
  - Special assessment findings
  - Management of patients with compartment syndrome
- f. Soft Tissue Injuries
- Closed soft tissue injury
  - Open soft tissue injury
  - General assessment
  - General management
- g. Burns
- Complications of burns
  - Depth classification of burns
  - Body surface area of burns
  - General assessment of burn injuries
  - General management
  - Specific burn injury management considerations
- h. Facial Fractures
- Types of facial injuries
  - Unstable facial fractures
  - Assessment considerations in facial and eye injuries

- Management considerations in facial and eye injuries
- i. Laryngeotracheal Injuries
  - Pathophysiology
  - Specific assessment considerations
  - Specific management considerations
- j. Traumatic Brain Injury
  - Pathophysiology
  - Specific assessment considerations
  - Special management considerations
- k. Kinematics of Trauma
  - Definition of kinematics of trauma
  - Multi-system trauma
  - Blast injuries
- l. Environmental Injuries
  - Submersion incidents
  - Temperature-related illness
  - Special assessment considerations
  - Special management considerations
  - Bites and envenomation
  - Electrical injury – lightning strikes
  - High altitude illness

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