

**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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