

## NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY EMS 137 – TRAUMA CARE (1 CR.)

### 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.

Lecture 1 hour. Total 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/Corequisites

Corequisite: EMS 138

### Course Objectives

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
- l) Identify types of environmental injuries, assessment and treatment

### Major Topics to be Included

- a) Chest Injuries
  - a. Traumatic Aortic Disruption
  - b. Pulmonary Contusion
  - c. Blunt Cardiac Injury
  - d. Hemothorax
  - e. Open Pneumothorax
  - f. Simple Pneumothorax
  - g. Tension Pneumothorax
  - h. Cardiac Tamponade
  - i. Rib Fractures
  - j. Flail Chest
  - k. Commotio Cordis
- b) Abdominal Injuries
  - a. Closed Abdominal Trauma
  - b. Penetrating/Open Abdominal Trauma
  - c. Considerations in Abdominal Trauma
- c) Amputations
  - a. Location of amputation

- b. Tearing versus cutting amputations
  - c. Assessment of amputated part
  - d. Care of the amputated part
  - e. Use of tourniquets
- d) Pelvic Fractures
  - a. Types of fractures
  - b. Pelvic instability
  - c. Specialized pelvic immobilization devices
  - d. Management of blood loss
- e) Compartment Syndrome
  - a. Pathophysiology of injuries resulting in compartment syndrome
  - b. Special Assessment Findings
  - c. Management of patients with compartment syndrome
- f) Soft Tissue Injuries
  - a. Closed soft tissue injury
  - b. Open soft tissue injury
  - c. General Assessment
  - d. General Management
- g) Burns
  - a. Complications of Burns
  - b. Body Surface Area of Burns
  - c. General Assessment of Burn Injuries
  - d. General Management
  - e. Specific Burn Injury Management Considerations
- h) Facial Fractures
  - a. Types of facial injuries
  - b. Unstable Facial Fractures
  - c. Assessment Considerations in Facial and Eye Injuries
  - d. Management Considerations in Facial and Eye Injuries
- i) Laryngeotracheal Injuries
  - a. Pathophysiology
  - b. Specific Assessment Considerations
  - c. Specific Management Considerations
- j) Traumatic Brain Injury
  - a. Pathophysiology
  - b. Specific Assessment Considerations
  - c. Special Management Considerations
- k) Kinematics of Trauma
  - a. Definition of kinematics of trauma
  - b. Multi-System Trauma
  - c. Blast Injuries
- l) Environmental Injuries
  - a. Submersion incidents
  - b. Temperature-related illness
  - c. Special Assessment considerations
  - d. Special management considerations
  - e. Bites and Envenomation
  - f. Electrical injury - Lightning strikes
  - g. High altitude illness