Course Prefix and Number: EMS 127  
Credits: 1

Course Title: Airway, Shock and Resuscitation

Course Description: Introduces concepts associated with pre-hospital emergency care of the individual experiencing airway difficulty or in need of resuscitation or shock management. Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS. Co-requisite: EMS 128. Lecture 1 hour per week.

General Course Purpose: The purpose of this course is to introduce the novice student to the principles of airway assessment and management, including resuscitation techniques and care of a patient in shock.

Course Prerequisites and Co-requisites:
Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS  
Co-requisite: EMS 128

Student Learning Outcomes:  
Upon completing the course, the student will be able to  
a. Discuss the principles of airway assessment;  
b. Compare and contrast types of airway management techniques;  
c. Explain the physiology of respiration, ventilation, and oxygenation;  
d. Recall the concepts of cardiopulmonary resuscitation (CPR);  
e. Differentiate types of shock; and  
f. Discuss care options related to shock resuscitation.

Major Topics to Be Included:

a. Airway Assessment  
   ▪ Review of airway anatomy  
   ▪ Techniques used to assess airway patency  
   ▪ Principles of anticipating difficult airways

b. Airway Management  
   ▪ Review of airway management devices  
   ▪ Techniques used to manage airway patency  
   ▪ Endotracheal intubation  
   ▪ Nasotracheal intubation

c. Physiology of Respiration, Ventilation, and Oxygenation  
   ▪ Principles related to the mechanics of respiration, ventilation, and oxygenation  
   ▪ Cellular respiration  
   ▪ Use of supplemental oxygen  
   ▪ Differences between normal and positive pressure ventilation
d. Cardiac Arrest and Resuscitation
   - Review of the CPR guidelines for the adult, child, infant, and neonatal patient
   - Principles of resuscitation
   - Concepts of post-resuscitation care

e. Shock
   - Concepts of tissue hypoperfusion
   - Categories of shock
   - Specific types of shock
   - Concepts in treating patients in shock
   - Considerations in the geriatric and pediatric populations

Date Created/Updated (Month, Day, and Year): September 21, 2018