J. Sargeant Reynolds Community College  
Course Content Summary

**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

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