Northwest Arkansas Community College
Division of Health Professions

Discipline Code
EMTP

Course Number
1081

Course Title
Shock and Fluid Therapy Lecture

Catalog Description
An understanding of shock or lack of cellular oxygenation and its management are covered in depth. Course will present a discussion of body fluids, osmosis, pathophysiology of shock, evaluation and resuscitation. This class is a “Flipped” classroom and students will watch lecture away from the classroom and take quizzes and exams. Quizzes and exams will be discussed in class and material that needs further attention will be taught by the instructor.

Prerequisite
Admission into the paramedic program and enrolled as a student at NWACC

Credit Hours
1 credit hours

Contact hours
16 lecture contact hours

Load hours
1 load hour

Semesters Offered
Spring

ACTS Equivalent
None

Grade Mode
A-F

Learning Outcomes
- Describe basic pathophysiology and etiology of Shock
- Identify major body fluid compartments and total fluid capacity

- Explain the etiology of various types of shock
- Understand physiological factors effecting fluid shifts within the body
- List and describe the major components of human blood
- Describe blood types and significance to emergency management of shock
- Select appropriate fluids and drip sets for intravenous resuscitation of patients
- Identify abnormal arterial blood gas values
- Explain appropriate emergency treatment for critical arterial blood gases
- Describe the physiological stages of shock
- Demonstrate appropriate rapid physical assessment to R/O and/or diagnose shock
- Indicate/perform basic and advanced life support modalities in the treatment of shock
- Demonstrate peripheral intravenous access for fluid and blood resuscitation
- Identify common complications and remediation for IV resuscitation
- Perform successful phlebotomy on human subjects
- Perform successful peripheral intravenous access in human subjects
- Describe and perform appropriate procedures for avoidance of blood borne pathogen
- Explain and perform accurate administration of IV fluids for Tx of shock
- Demonstrate effective methods for securing IV tubing following intravenous access
- Demonstrate application, inflation, and deflation of the PASG.

General Education Outcomes Supported

- Students develop higher order thinking skills.
- Students can employ a variety of sources to locate, evaluate, and use Information

Standard Practices

Topics list

- Define shock. (pp 1304–1305)
- Outline the factors necessary to achieve adequate tissue oxygenation. (pp 1305–1307)
- Describe how the diameter of resistance vessels influences preload. (pp 1305–1308)
- Calculate mean arterial pressure when given a blood pressure. (p 1305)
- Outline the changes in the microcirculation during the progression of shock. (pp 1308–1309)
- List the causes of hypovolemic, cardiogenic, obstructive, and distributive shock. (pp 1309– 1314)
- Describe pathophysiology as a basis for signs and symptoms associated with the progression through the stages of shock. (pp 1314–1317)
- Describe key assessment findings that distinguish the etiology of the shock state. (pp 1317– 1322)
- Outline the prehospital management of the patient in shock based on knowledge of the pathophysiology associated with each type of shock. (pp 1317, 1321–1324, 1325–1329)
- Discuss how to integrate the assessment and management of the patient in shock. (pp 1317– 1322, 1329)
- Describe principles of fluid administration in shock. (pp 1319–1325)

Grading guidelines

Written quizzes,unit exams, and practical exams will make up the total points for grading