

04_Vascular conditions, Shock, FAST Training

Content Area: **Science**
Course(s):
Time Period: **Full Year**
Length: **Type Length of Unit**
Status: **Published**

General Overview, Course Description or Course Philosophy

This course covers introductory information as it relates to the evaluation of individuals who have either critical medical conditions or sustained acute injuries, and their subsequent pre-hospital treatment. Students are minimally expected to have the knowledge and skills to perform basic life support and elementary treatment to stabilize a patient for transport to a hospital but not be proficient in utilizing complex life sustaining equipment. Students are expected to know first aid, understand when more experienced or sophisticated help is needed, and to prioritize the need for care. They also must do no harm. The first aid provider is not expected to offer the same level of care as a licensed EMT. This course offers 3 Rutgers University credit with the passing of the final exam.

OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

- Anaphylaxis: life threatening allergic reaction resulting in the following signs and symptoms; flushing, itching or burning of face and upper chest; hives; swelling of face and tongue; cyanosis; weak pulse; dizziness; unresponsiveness; tightness in the chest with dry cough; difficulty breathing; wheezing; fluid and mucus in the throat
- Shock: hypo-perfusion from either anaphylaxis, cardiogenic, or psychogenic causes
- Epinephrine auto-injector: administration of epinephrine to stop anaphylaxis
- Neurogenic shock: circulatory failure resulting from paralyzed nerves that cannot control size of blood vessels resulting in dilation
- Hemorrhage: large amount of bleeding in a short time period
- Arterial bleeding: serious bleeding that appears in spurts
- Venous bleeding: blood flows from vein steadily and easier to stop than arterial bleeding

- Tourniquet: device wrapped tightly around an extremity proximal to the wound to stop blood from flowing

CONTENT AREA STANDARDS

VHEL.9-12.9.4.12.H.62	Demonstrate knowledge of technical skills required for career pathways in this cluster, including occupational safety techniques, OSHA Standard Precautions, and safety procedures designed to protect clients, co-workers, and self.
VHEL.9-12.9.4.12.H.63	Demonstrate knowledge of technical skills required for career pathways in this cluster by obtaining related certificates, such as Cardiopulmonary Resuscitation (CPR) and First Aid.

RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)

LA.RH.11-12.3	Evaluate various perspectives for actions or events; determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
LA.RH.11-12.4	Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).
LA.RH.11-12.8	Evaluate an author's claims, reasoning, and evidence by corroborating or challenging them with other sources.
LA.WHST.11-12.1.B	Develop claim(s) and counterclaims using sound reasoning and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.
LA.WHST.11-12.1.E	Provide a concluding paragraph or section that supports the argument presented.
WRK.9.1.2.CAP	Career Awareness and Planning
WRK.9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
TECH.9.4.2.CT	Critical Thinking and Problem-solving

STUDENT LEARNING TARGETS

Declarative Knowledge

Students will understand that:

- Describe the difference between compensated and decompensated shock.
- Describe how to generally care for shock.

- Describe the care for anaphylaxis.
- Describe the care for psychogenic shock.
- List and describe the three types of external bleeding.
- Describe how to care for external bleeding.
- Recognize the signs of internal bleeding.
- Describe how to care for and monitor victims of severe internal bleeding.
- Describe the care of minor internal bleeding (bruising).

Procedural Knowledge

Students will be able to:

- Demonstrate patient care for individuals in shock
- Demonstrate the care of a patient with anaphylaxis
- Identify the 3 types of external bleeds
- Identify signs and symptoms of internal bleeding
- Demonstrate treatment for various bleeding wounds.

EVIDENCE OF LEARNING

Formative Assessments

Summative Assessments

- - Benchmarks – departmental benchmark given at the end of MP1, MP2, and MP3 based on lab practices
 - Alternative Assessments
 - Lab inquiries and investigations
 - Lab Practicals
 - Exploratory activities based on phenomenon
 - Gallery walks of student work
 - Creative Extension Projects
 - Build a model of a proposed solution
 - Let students design their own flashcards to test each other
 - Keynote presentations made by students on a topic
 - Portfolio
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RESOURCES (Instructional, Supplemental, Intervention Materials)

Textbook required by Rutgers University:

Advanced First Aid, CPR, and AED, Seventh Edition

Jones and Bartlett

ISBN-13: 978-1284105315

ISBN-10: 1284105318

<https://firstaidforlife.org.uk/severe-bleeding-and-clinical-shock/>

American Red Cross FAST Training Guide

INTERDISCIPLINARY CONNECTIONS

Informative Writing

Data Analysis

Integrate quantitative or technical information expressed in words in a text

Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.