

08_Muscle Strains, Sprains, Types of Fractures & Treatments

Content Area: **Science**
Course(s):
Time Period: **Full Year**
Length: **3-4 weeks**
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

CONTENT AREA STANDARDS

SCI.HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
VHEL.9-12.9.4.12.H.1	Demonstrate language arts knowledge and skills required to pursue the full range of postsecondary education and career opportunities.
VHEL.9-12.9.4.12.H.3	Demonstrate science knowledge and skills required to pursue the full range of postsecondary education and career opportunities.
VHEL.9-12.9.4.12.H.5	Select and employ appropriate reading and communication strategies to learn and use technical concepts and vocabulary in practice.
VHEL.9-12.9.4.12.H.44	Demonstrate an understanding of the roles and responsibilities of all members of the healthcare team, including their ability to promote the delivery of quality healthcare.
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.RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
LA.RST.11-12.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.
LA.RST.11-12.8	Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
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.
TECH.9.4.12.CI	Creativity and Innovation
TECH.9.4.12.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

- Worksheet
- Group activities
- Practicals

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

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

INTERDISCIPLINARY CONNECTIONS

- Information writing
- Ethics
- Data analysis

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.