



### High School Course of Study Approval Request Form

High School Site	Signature - Principal or Academic AP Designee	Signature - Teacher Leader (enter N/A if no Teacher Leader)	Comments:
American Canyon HS	Andrew Goff	Michelle Davis	
Napa HS	Ean Ainsworth	Rob Kohl	
Napa Valley Independent Studies	Susan Wilson	NA	
New Tech HS	Riley Johnson	NA	
Valley Oak HS	Maria Cisneros	NA	
Vintage HS	Katelyn Estudillo	Jim Costan	

Course submitted by:	Gillie Miller	School Site:	American Canyon High School
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Executive Director, Secondary Education: \_\_\_\_\_ 

**Review resources:**

- [Rubric for Evaluating Digital Content & Technology Tools in Relation to CCSS for ELA \(Grades 6-12\)](#)
- [State Math criteria](#)
- [Technology in Teaching Math](#)
- [Other criteria and decision making tools](#)

Please review following high school course outline and sign above if you approve or write reason in comment area if you do not.

New  Revised outline - new course number to be issued due to change in course titles, grade level, and graduation requirement

COMPUTER (Short) TITLE: P CTE Sport Med [New: P CTE Sport Med 1]  
 COURSE (Long) TITLE: P CTE Sports Medicine [New: P CTE Sports Medicine 1]  
 COURSE NUMBER: CTE992  
 GRADE LEVEL: 10 - 12 [New: 9 - 12]  
 LENGTH OF COURSE: 1 year/10 credits (5 credits/semester)  
 GRAD REQUIREMENT: Elective (Z) [New: Life Science (G)]  
 CSU/UC REQUIREMENT: "d" (Laboratory Science)  
 COLLEGE PREP: Yes  
 VOCATIONAL ED: Introductory  
 CALPADS CODE: 7920  
 PATHWAY CODE: HLT 198

**NCLB :**

**No**

## **COURSE OVERVIEW**

### **DESCRIPTION OF COURSE:**

This full-year course is the first level in a Sports Medicine pathway designed for students to learn the components of exercise science/sports medicine including exploration of therapeutic careers, medical terminology, anatomy and physiology, first aid, injury prevention principles, the healing process, taping and wrapping techniques, and resume/job application skills.

### **COURSE OBJECTIVES:**

The purpose of this course is to provide students with specific health care knowledge and techniques. Students will learn, demonstrate, and teach others the fundamentals of anatomy and physiology as it relates to athletics. The course will focus on the fundamental causes, prevention, recognition, care, reconditioning of musculoskeletal injuries/illness, and program organization and administration. Upon completion of this course, the students will be able to:

Review anatomy and physiology as it applies to the prevention and care of injuries.

Describe and demonstrate the anatomical basis, preventative exercises, specific evaluative procedures, treatment technique, and specific taping and wrapping procedures for:

foot/ankle/lower leg injuries

knee injuries

hip/thigh injuries

trunk injuries (pelvic/spine/rib)

internal injuries (abdominal/thoracic)

shoulder injuries

elbow injuries

hand/wrist injuries

Apply medical terminology.

Describe the injury and healing process.

Be able to explain personal strengths and weakness

Create an accurate/usable resume

### **STUDENT LEARNING OUTCOMES:**

Explore therapeutic careers. Associate certain professions with Athletic Training, and compare, contrast the similarities and the differences between each, and identify the educational path necessary to pursue a career in the industry.

## **COURSE CONTENT**

### **Unit 1: Introduction to Sports Medicine**

Sports medicine is one of the fastest growing fields in medicine. It includes working with professional sports teams, high school and college athletes, and individuals with sports-related injuries. Sports medicine/athletic trainers perform the duties of physical therapy aides but deal with the practical aspects of sports injury prevention, recognition, and treatment of sports-related injuries.

Define sports medicine/athletic training and describe the ways in which it involves applications of human anatomy and physiology.

Research and investigate the history of sports medicine/athletic training from the Greeks to the present.

Identify the essential components of an effective sports medicine program.

Demonstrate safety and emergency procedures through conduct during laboratory assignments and field experiences.

Compare and contrast professional organizations associated with sports medicine/athletic training and describe their significance to the profession.

Identify personal characteristics of sports medicine practitioners.

Examine the education path, experience, and licensing requirements necessary to pursue a career in sports medicine/athletic training.

Define and accurately use medical terminology and abbreviations (throughout the year).

**Example Activities**

Write a one page explanation of the importance of Privacy Acts in the medical fields, being sure to include information about HIPAA and FERPA.

Research a professional organization associated with Sports Medicine and present to the class information about the organization and why it is important using a PowerPoint.

Anchor Standards: 1.0, 2.1, 2.2, 2.3, 2.4, 2.5, 4.1, 4.2, 4.3, 4.4, 5.1, 5.4, 5.6, 6.2, 7.4, 8.2, 8.4, 8.7

Pathway Standards:

B1.1 Know relationship and use of an integrated healthcare delivery system.

B1.2 Understand the range between prevention, diagnosis, pathology, and treatment procedures.

B6.6 Maintain written guidelines of Health Insurance Portability and Accountability Act ( HIIPAA ) in all communications.

B12.2 Describe the various roles and responsibilities of health care workers as team members in an integrated healthcare delivery system.

## **Unit 2: Anatomy and Physiology**

Topics include: Anatomy and Physiology; Basic Terminology; structural Overview of Levels of Organization (Clinical, Cellular, Tissue, Organ, System); Homeostasis: The Balance of Life; Health and Disease; Overview of Cells, Tissues, Organs and Systems; Overview of the Human Body.

Use anatomical vocabulary and references accurately.

Explain homeostasis for proper body function and identify response to lack of homeostasis (heat illness, hypothermia).

Examine cellular structure and function and its relationship to the injury process.

Describe the structure and function of healthy tissue.

Compare and contrast tissue types: epithelial, connective, muscular, and nervous and explain the significance of each to injury and healing.

Examine body temperature regulation.

**Example Activities**

Create a poster identifying the three types of bones and where each type is found in the body for sharing with the class.

Create a PowerPoint presentation identifying the signs and symptoms of the three main heat illnesses: heat cramps, heat exhaustion, and heat stroke; and include hypothermia for sharing with the class.

Identify the parts of a cell from a diagram.

Create a PowerPoint presentation identifying different types of cells.

View slide presentations and identify healthy tissue versus unhealthy tissue.

Anchor Standards: 1.0, 2.4, 2.5, 2.7, 2.8, 4.1, 10.1, 10.3

Pathway Standards: B5.1, B5.2

## **Unit 3: The Skeletal System**

The bones that make up the skeleton also protect the soft body parts, produce blood cells, and act as a storage unit for minerals and fat.

Describe the functions of the skeletal system.

Identify and describe the anatomy and physiology of bone.

Locate and describe the various bones within the body.

Differentiate between bone, cartilage, ligaments, and tendons.

Locate and describe the various joints and types of movement of the body.

Explain common diseases and disorders of the skeletal system.

Distinguish between the types of fractures: compound, closed, epiphyseal, greenstick, hairline, etc.

Describe the healing cycle of bone injury.

Define arthritis, its cause, and treatment protocols.

Create a powerpoint slide to explain an assigned disease or disorder of this system

**Example Activities**

Create a chart that depicts bone growth and the formation process.

Create a PowerPoint presentation identifying the many types of fractures, causes, and treatment.

Make an oral presentation to the class identifying types of joints in the body and demonstrate the range of motion for each.

**Anchor Standards:** 1.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 4.1, 10.1, 10.3

**Pathway Standards:**

B2.1 Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology and treatment.

B2.2 Describe basic stages of growth and development

B2.3 Recognize common disease and disorders of the human body.

#### **Unit 4: The Muscular System**

Different types of specialized muscles within the muscular system allow for both external and internal movement.

Differentiate the three major muscle types.

Discuss the functions of tendons and ligaments.

Explain the difference between voluntary and involuntary muscles.

Describe the various types of skeletal muscle movement.

Identify and explain the components of a muscle cell.

Describe the chemical activities required for muscle movement.

Describe the process of neuromuscular transmission.

Contrast the activity of cardiac, smooth, and skeletal muscles.

Examine the disorders of the muscular system.

**Example Activities**

Draw the muscles onto the skeleton previously created.

Create a PowerPoint presentation of the different muscle fibers and present to the class.

Examine the actin-myosin relationship and be prepared to discuss how it pertains to muscular work.

Create a poster depicting where smooth and cardiac muscle is found in the body.

Identify the origin, insertion and action of the rotator cuff, hamstring group, quadriceps group, and the gastrocnemius/soleus complex by placing a rubber band in the proper location on the skeleton.

Create a powerpoint slide to explain an assigned disease or disorder of this system

**Anchor Standards:** 1.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 4.1, 5.4, 5.6, 10.1, 10.3

**Pathway Standards:**

2.1 Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology, and treatment.

B2.3 Recognize common disease and disorders of the human body.

### **Unit 5: Central Nervous System**

The control systems of the body are the nervous and endocrine systems, which receive help from various senses.

List and describe the components and basic operation of the nervous system.

Contrast the central and peripheral nervous systems.

Explain the relationship of the sensory system to the nervous system.

Define the parts and functions of the nervous tissue.

Discuss the anatomy and physiology of the spinal cord.

Organize the hierarchy of the nervous system.

Locate and define the major structures of the brain and their corresponding functions.

Describe the sensory functions of the brain with related structures.

Contrast the parasympathetic and sympathetic branches of the autonomic nervous system.

Examine representative diseases of the nervous system.

**Example Activities**

Explain the gate theory and its relationship to injury rehabilitation.

Identify the major nerves.

Conduct a cranial nerve assessment.

Locate dermatomes and match them to the nerves that innervate them.

Create a powerpoint slide to explain an assigned disease or disorder of this system

Anchor Standards: 1.0, 2.7, 2.8, 4.1, 5.4, 5.6, 10.1, 10.2, 10.3

Pathway Standards:

B2.1 Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology, and treatment.

B2.3 Recognize common disease and disorders of the human body.

### **Unit 6: Systems that Transport**

**Blood:** Topics include characteristics of blood, plasma, formed elements (red blood cells, white blood cells, platelets), hemostasis, blood groups, blood borne pathogens; issues related to blood and blood borne pathogens in sports medicine. **Cardiovascular system: Heart and Circulatory System:** Topics include general characteristics and functions of the heart, heart physiology, blood vessels, and circulatory pathways.

**Respiratory System:** topics include oxygen and carbon dioxide exchange, identification of structures, and general functions of the lungs.

Identify structures and functions of the cardiovascular system.

Trace the blood flow through the vessels and chambers of the heart.

Explain the coronary circulation.

Describe the contraction of the heart and the electrical conduction system.

Differentiate between arteries, veins, and capillaries.

List the major components of blood and their functions.

Discuss the importance of blood typing.

Explain the process of blood clotting.

Describe various cardiovascular diseases.

Explain the process of oxygen and carbon dioxide exchange in the alveoli.

Trace the path of gases into and out of the lungs

Describe various lungs diseases, especially asthma

#### Example Activities

Describe the structures of the heart, locate anatomical structures on models, and explain function of major heart structures.

Measure and analyze blood pressure and heart rate before and after physical activity.

Draw a poster size drawing of the heart and lungs. Trace the path of oxygen and carbon dioxide through the structures.

Create a powerpoint slide to explain an assigned disease or disorder of this system

Anchor Standards: 1.0, 2.7, 2.8, 4.1, 5.4, 6.3, 6.4, 6.6, 10.1, 10.2, 10.3

#### Pathway Standards:

B2.1 Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology, and treatment.

B2.2 Describe basic stages of growth and development.

B2.3 Recognize common disease and disorders of the human body.

B2.4 Compare normal function of the human body to diagnosis and treatment of disease and disorders.

### **Unit 7: First Aid/CPR**

CPR consists of artificial blood circulation and artificial respiration to maintain oxygenated blood to the brain and heart, thereby delaying tissue death and extending the window of opportunity for a successful resuscitation without permanent brain damage.

Assess vital signs, blood pressure, pulse, skin color, respirations and pupil response.

Describe basic wounds: laceration, incision, puncture, abrasion and avulsion.

Explain basic wound care.

Describe the "splinting" process and appropriate use.

Perform CPR.

#### Example Activities

Take blood pressure and pulse: pedal, carotid, and radial.

Examine photos and identify specific wounds and treatment.

Demonstrate how to clean and dress a wound.

Splint a leg including the ankle and a forearm/wrist

Apply a sling correctly

Fit a partner with crutches

Achieve certifications in CPR/AED and First Aide

Write a 2 page discussion of the physiological effects of CPR and an AED. Explain the importance of starting early CPR and defibrillation.

Anchor Standards: 1.0, 2.1, 2.2, 2.4, 2.5, 2.8, 5.2, 5.4, 5.5, 5.6, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.4, 7.7, 8.1, 8.2, 8.7, 10.2, 10.3, 10.4, 10.5, 11.2

#### Pathway Standards:

B1.4 Illustrate the value of preventative and early intervention in relationship to health care practices.

B2.4 Compare normal function of the human body to the diagnosis and treatment of disease and disorder.

B7.2 Differentiate between normal and abnormal patient health status.

B10.1 Describe the infection control cycle with consideration of the various types of microorganisms.

B10.3 Evaluate potential causes and methods of transmitting infections and how to apply standard precautionary guidelines.

B10.4 Demonstrate the use of appropriate personal protective equipment.

B10.5 practice proper hand hygiene.

- B10.6 Use various manual and mechanical decontamination and sterilization techniques and procedures.
- B11.4 Apply protective practices and procedure for airborne and blood-borne pathogens for equipment and facilities and identify unsafe conditions for corrective action.

### **Unit 8: Athletic Injuries: Evaluation and Treatment**

Examine the structure and function of normal tissue: Epithelial, Connective, Muscle, Nervous Membranes: Cutaneous, Serous, Mucous, Synovial.

Recognize signs of trauma.

Analyze tissue response to trauma and injury.

Describe the physiology of the inflammatory process.

Compare and contrast acute and chronic injuries.

Explain the pain-spasm-pain cycle and its relationship to injury.

Distinguish between healing times for various types of tissue:

tissue response to physical injury

tissue response to therapeutic modalities

regeneration of tissue

Become Familiar with abbreviations used during injury evaluations and note taking.

Explain what a SOAP note is and how to take an injury history.

**Example Activities**

Write a two-page paper explaining the body's response to trauma.

Create a poster presentation for sharing with the class on the inflammatory process and how it relates to injury recovery.

Fill in an injury history and an injury report when given a hypothetical injury scenario by the teacher.

**Anchor Standards:** 1.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.8, 4.1, 4.2, 4.3, 4.4, 5.1, 5.4, 5.6, 7.5, 10.1, 10.2, 10.3

**Pathway Standards:**

B3.1 Apply mathematical computations related to health care procedures ( metric and household, conversions, and measurements ).

B3.3 Record time using the 24 - hour clock.

B4.1 Conduct basic interview to acquire new knowledge ( e.g, medical and family histories ).

B4.5 Evaluate information gathered and connect patient data to appropriate system of care.

B5.4 Use medical abbreviations to communicate information.

B6.5 Report patient's progress and response to treatment goals.

### **Unit 9: Upper Extremities**

Describe and demonstrate the anatomical basis, preventative exercises, specific evaluative procedures, treatment techniques, and specific taping and wrapping procedures for the shoulder; elbow, wrist and hand.

Students will be able to:

Locate anatomical structure through palpation and by locating on a diagram of the joint;

Identify injuries based on specific signs and symptoms and the mechanism of which the injury occurred;

Perform specific muscle and ligament stability tests used in the assessment of shoulder, elbow, and hand/wrist injuries;

Identify the anatomical structures of the shoulder through palpation and by identifying them on the skeleton;

Locate and name the four joints that are created at the shoulder.

Identify injuries by evaluating and studying the mechanisms of each:

**Example Activities**

Tape the fingers, thumb, wrist, and elbow for support

Ace wrap the wrist, elbow, and shoulder for support and to control swelling.

Identify possible injuries using signs and symptoms in scenarios acted out by the instructor.  
After assessing the injuries in the scenarios, the students will recommend treatment options.

**Anchor Standards:** 5.2, 5.3, 5.4, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 10.1, 10.2, 10.3

**Pathway Standards:**

B2.1 Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology, and treatment.

B2.4 Compare normal function of the human body to the diagnosis and treatment of disease and disorders.

B4.1 Conduct basic interview to acquire new knowledge ( e.g, medical and family histories ).

B5.4 use medical abbreviations to communicate information.

B7.3 Document the patient findings and report information appropriately.

B12.3 Demonstrate the knowledge and delivery of specific skills and procedures as outlines within the scope of practice appropriate for patient care in prevention, diagnosis, pathology, and treatment.

B12.4 Follow appropriate guidelines for implementation of various procedures.

### **Unit 10: Lower Extremities**

Describe and demonstrate the anatomical basis, preventative exercises, specific evaluative procedures, treatment techniques, and specific taping and wrapping procedures for the hip/thigh, knee, ankle, and foot

Students will be able to:

Locate anatomical structure through palpation and by locating on a diagram of the joint;

Show and name the movements of the ankle;

Identify injuries based on specific signs and symptoms and the mechanism of which the injury occurred;

Describe the parameters for the three degrees of an ankle sprain and how each degree changes the treatment protocol.

Identify the muscles, bones, ligaments and tendons through palpation and on the skeleton;

Perform specific tests used in the assessment of hip/thigh, knee, lower leg, and ankle injuries;

Perform muscular tests on the hip to determine a muscular imbalance;

Perform taping and wrapping skills to support and decrease swelling in the hip/thigh, knee, ankle and foot.

Identify injuries by evaluating and studying the mechanisms of each:

**Example Activities**

Apply an ace wrap to support a quad, hamstring, or hip flexor strain.

Apply an ace wrap to minimize swelling after a knee or ankle injury.

Apply Tape to a knee, ankle or foot to support a tendon or ligament injury.

Apply an ankle tape for ankle sprain prevention.

Identify possible injuries using signs and symptoms in scenarios acted out by the instructor.

After assessing the injuries in the scenarios, the students will recommend treatment options.

**Anchor Standards:** 5.2, 5.3, 5.4, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 10.1, 10.2, 10.3

**Pathway Standards:**

B2.1 Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology, and treatment.

B2.4 Compare normal function of the human body to the diagnosis and treatment of disease and disorders.

B4.1 Conduct basic interview to acquire new knowledge ( e.g, medical and family histories ).

B5.4 use medical abbreviations to communicate information.

B6.5 Report patient's progress and response to treatment goals.

B7.3 Document the patient findings and report information appropriately.

B12.3 Demonstrate the knowledge and delivery of specific skills and procedures as outlined within the scope of practice appropriate for patient care in prevention, diagnosis, pathology, and treatment.

B12.4 Follow appropriate guidelines for implementation of various procedures.

### **Unit 11: Head, Neck, and Torso**

Describe and demonstrate the anatomical basis, preventative exercises, specific evaluative procedures, and treatment techniques for the head, neck, spine and torso. Students will be able to:

Identify injuries by evaluating and studying the mechanisms of each:

Identify the bones, ligaments and muscles of the head, neck and spine on a skeleton, diagrams and through palpation.

Locate the four quadrants of the abdomen;

Give the location of each internal organ by placing it in the proper quadrant

Explain what a concussion is and current trends in concussion management

#### **Example Activities**

Identify possible injuries using signs and symptoms in scenarios acted out by the instructor.

After assessing the injuries in the scenarios, the students will recommend treatment options.

Research the latest information about concussions and the diagnostic tools for treating and diagnosing the severity of them.

Explain the dangers of second impact syndrome.

Place a patient on a spine board and strap down correctly for transport.

Stretch the lower back to relieve stiffness.

Teach core exercises to the class.

Anchor Standards: 1.0, 2.7, 2.8, 5.2, 5.3, 5.4, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 10.1, 10.2, 10.3

#### **Pathway Standards:**

B2.1 Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology, and treatment.

B2.4 Compare normal function of the human body to the diagnosis and treatment of disease and disorders.

B4.1 Conduct basic interview to acquire new knowledge ( e.g, medical and family histories ).

B5.4 Use medical abbreviation to communicate information.

B6.5 Report patient's progress and response to treatment goals.

B7.3 Document the patient findings and report information appropriately.

B8.1 Explain the principles of body mechanics.

B8.2 Determine the appropriate equipment for transportation and transfer, including the modification of equipment and techniques to accommodate the health status of the patient.

B8.3 Demonstrate the appropriate transport and transfer methods to accommodate the health status of the patient.

B8.5 Integrate proper body mechanics, ergonomics, safety equipment, and techniques to prevent personal injury to patients and clients.

B12.3 Demonstrate the knowledge and delivery of specific skills and procedures as outlined within the scope of practice appropriate for patient care in prevention, diagnosis, pathology, and treatment.

B12.4 Follow appropriate guidelines for implementation of various procedures.

### **Unit 12: Professional Skills**

Describe how to find employment

Know the main strategies for self-promotion in the hiring process, such as completing job applications, resume, interviewing skills, and preparing a portfolio.

Be exposed to a variety of medical careers through guest speakers and online exploration

#### **Example Activities**

Write and use word processing software to create a resume, cover letters, thank you letters, and job

applications.

Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.

Conduct a self—assessment and explain how professional qualifications affect career choices.

Research at least four possible careers, focussing on information on the education needed and job responsibilities.

Anchor Standards: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.9, 4.1, 4.2, 4.3, 4.4, 10.4, 11.1

Pathway Standards:

B12.1 Understand scope of practice and related skills within prevention, diagnosis, pathology, and treatment occupation.

B12.2 Describe the various roles and responsibilities of health care workers as team member in an integrated healthcare delivery system.

## **LAB ACTIVITIES & KEY ASSIGNMENTS**

### **Lab Activities**

Activities/assignments are included after each unit in the course outline in addition to the following:

#### **Introduction to Sports Medicine (Unit 1):**

Students will identify techniques to protect self and others and to help prevent the spread of infection to patients, co-workers, and the community:

demonstrate ability to sterilize surfaces and equipment and prevent contamination with gloves, safety glasses, gown, mask, and headgear while working with infected patients

demonstrate primary levels of precaution to prevent cross contamination.

#### **Anatomy & Physiology (Unit 2):**

Students will recognize four primary types of tissue in the body, the location in the body, and the function:

learn and perform proper lab procedures to limit risk of contamination;

examine healthy and diseased tissue samples and develop the ability to differentiate the diseased tissue from healthy tissue

describe how different tissue types support different functions in organs and organ systems.

Students will demonstrate the importance of laboratory standards for uniformity, accuracy, and improved outcomes:

learn and perform proper lab procedures to limit risk of contamination;

describe the guidelines for all laboratory workers;

Perform selected laboratory tasks correctly.

#### **Skeletal System (Unit 3):**

Students will identify and distinguish between the four types of bones:

dissect long-bones; identify internal features and bone structure;

recognize the types of bone, which group it belongs to, where it is located, and it's function.

Skeleton Identification Poster: Students will draw and correctly label the bones on a life size poster.

Lever Project: Students will experiment with different lever systems and relate them to movement.

#### **Muscular System (Unit 4):**

Students will identify the six basic movements performed by the muscles:

analyze animal muscles and predictions about the response of human muscular contractions to stimuli;

describe different types of muscle, their functions, and their movements.

Muscle Location Project: Students will place rubber bands from the origin to the insertion on their skeleton

models from a previous assignment and test the placement by moving the joint appropriately.

#### **Blood Pressure/Heart Rate (Unit 5):**

Students hypothesis will be on the outcome of how high the heart rates and blood pressures rise for athletes and non-athletes before and after jumping rope for two minutes. Students will take pre- exercise heart rates and blood pressures and post-exercise rates and pressures for comparison.

Post-readings will be repeated after two minutes rest to determine recovery rate. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**Nervous System (Unit 5): Reflex testing Lab -** Students learn how to assess reflexes and then explain how the reflex arc works.

#### **Systems that Transport (Unit 6):**

**Blood Pressure/Heart Rate:** Students hypothesize what will be on the outcome of how high the heart rates and blood pressures rise for athletes and non-athletes before and after jumping rope for two minutes. Students will take pre- exercise heart rates and blood pressures and post-exercise rates and pressures for comparison.

Post-readings will be repeated after two minutes rest to determine recovery rate.

**Vital Signs:** students will accurately check pulse, blood pressure, and check pupil responses.

#### **First Aid/CPR (Unit 7):**

Students will take American Red Cross CPR/First Aid/AED Tests

#### **Upper Extremities (Unit 9):**

**Ligament Testing:** Students perform proper evaluation tests to evaluate ligament instability

**Taping & Wrapping:** Students will demonstrate appropriate taping and wrapping skills

#### **Lower Extremities (Unit 10)**

**Ligament Testing:** Students perform proper evaluation tests to evaluate ligament instability

**Taping & Wrapping:** Students will demonstrate appropriate taping and wrapping skills

#### **Head/Neck/Torso (Unit 11)**

**Concussion Testing:** Students will experience various concussion tests such as ImPACT, BESS, and SCAT3.

#### **Key Assignments**

##### **Internal Injuries Research paper (Spring Semester)**

Students will research and write an expository essay about internal injuries. Research on internal injuries will deepen students' comprehension of the magnitude of sports-related injuries and broaden their knowledge of less common but potentially much more dangerous internal abdominal injuries from blunt trauma and most common in contact sports.

**Product:** Three-to-five page type-written essay, MLA formatted, including works-cited page; Essays must include the following:

Common types of injuries (scrapes, bumps, sprains, and strains)

Less common but potentially more dangerous types of internal abdominal injuries (kidney, spleen, liver, pancreas, diaphragm, stomach, gallbladder, bladder and intestines)

Signs and symptoms to look for diagnosis and treatment

Students will research evidence from at least two separate scientific studies addressing risks children and teens face when participating in organized and recreational sports and defend their position.

**UNIT 1:** Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**UNIT 2:** Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**UNIT 3:** Listed in Lab Activities. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**UNIT 4:** Listed in Lab Activities. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**UNIT 5:** Listed under Laboratory Activities. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**UNIT 6:** Listed under Lab Activities. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**UNIT 7:** Write a Two page discussion of the physiological effects of performing CPR and using an AED, as well as explain the importance of early CPR and Defibrillation. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

#### **SEMESTER 1 Summative Assessment**

**UNIT 8:** Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**UNIT 9:** Listed under Lab Activities. Students will fill in evaluation reports when given a scenario by the teacher. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

**UNIT 10:** Listed under Lab Activities. Students will fill in evaluation reports when given a scenario by the teacher. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

Unit 11: Students will research a current event related to concussion research, write a two-page typed summary and present to the class. Students will complete the Chapter Review assignments to familiarize and review key vocabulary and terminology in preparation for the End-of-Unit Test. Students will complete a series of worksheets that include a Key Terms Section and Questions for Review.

Unit 12: Create a portfolio containing self-assessment data, career research, a career plan, and resume.

## SEMESTER 2 Summative Assessment

### **INSTRUCTIONAL STRATEGIES**

Direct, differentiated presentations and demonstrations:

Instructor lectures and demonstrates to inform and model content prior to guided-practice.

Guest lecturer presentations to provide real-life examples and feedback on projects.

Media presentations (video, online, etc.) to assist understanding, comprehension, and reinforcement of concepts to accommodate different learning styles, support English learners, and develop 21st century communication skills.

Interactive Multi-Media Presentations:

Instructor guided and/or student directed discussion sessions to accurately use general academic and domain-specific words and phrases.

Interactive lecture sessions to practice verbal and nonverbal communications and appropriate responses.

Interactive media/computer/CD tutorials and simulations utilized to effectively communicate ideas to multiple audiences using a variety of media and formats.

Collaborative work to practice clear, verbal communication in sharing information and getting students' point of view understood and building skills to arrive at optimal solutions.

Team work to be able to adapt to changing and varies roles and responsibilities.

Tutorials

Projects

Student Research assigned to promote critical thinking, drawing conclusions, and making recommendations based upon findings.

Content

Written reports

Oral presentations and project-based learning utilizing work-based/workplace learning experiences to demonstrate and expand upon knowledge and skills gained during classroom instruction and projects.

Homework used for reflection, practice, reinforcing comprehension and application of new material.

Technical and academic readings utilized to synthesize, summarize, compare, and contrast information from multiple sources.

Cross-curricular integration utilized to make connections between abstract concepts with real work applications and recognize the value of academic preparation for solving problems, communicating with others, calculating measures, and performing practices.

On-going opportunities for writing, critical thinking, and literacy tasks throughout each project.

### **METHODS OF ASSESSING STUDENT PROGRESS**

Formative assessments used to confirm understanding and respond timely to any needed intervention prior to advancing to the next unit.

Summative assessments used monthly to demonstrate students ability to achieve essential outcomes.

Projects used weekly to apply concepts, and build notebook.

Oral presentations designed for students to practice clear, verbal communication in sharing information and getting their points understood.

Research design to demonstrate critical thinking, organization and decision-making skills by planning, establishing a time-line for research, and delivering an end-product.

Performance based assessments routinely done to provide the opportunity for students to demonstrate their understanding and expose them to the responsibilities and accountability faced in the real world.

Homework assignments used for reflection, practice, reinforcing comprehension and application of new material.

Exhibitions of student design work.

Notebook

## **INSTRUCTIONAL MATERIALS / TEXTBOOKS**

### **TEXTBOOK 1**

Title: Concepts of Athletic Training

Edition: 6th edition

Date: 2012

Publisher: Jones and Bartlett Learning

Author(s): Ronald P. Pfeiffer and Brent C. Mangus Usage: Primary Text

### **TEXTBOOK 2**

Title: Human Anatomy and Physiology

Edition: 10th Publication

Date: 2012

Publisher: Pearson Author(s): Elaine N. Marieb

Usage: Supplementary or Secondary Text

## **SUPPLEMENTAL INSTRUCTIONAL MATERIALS**

American Red Cross First Aid/CPR/AED Curriculum

## **STANDARDS SUMMARY**

Health Science and Medical Technology Knowledge and Performance Anchor Standard

1.0, 2.1-2.5, 2.7, 2.8, 3.1-3.6, 3.9, 4.1-4.4, 5.1-5.6, 6.1-6.8, 7.4, 7.5, 7.7, 8.1, 8.2, 8.4, 8.7, 10.1-10.5, 11.1, 11.2

Patient Care Pathway Standards

B1.1, B1.2, B1.4, B2.1- B2.4, B3.1, B3.3, B4.1, B4.5, B5.1, B5.2, B5.4, B6.5, B6.6, B7.2, B7.3, B8.1-B8.3, B8.5, B10.1, B10.3, B10.4, B10.5, B10.6, B11.4, B12.1-B12.4

Common Core and Academic Standards

LS 11-12.1 to 11-12.6, RSIT 11-12.4, 11-12.7, 11-12.8, 11-12.10, RRLST 11-12.1, 11-12.3 to 11-12.9, WS 11-12.2, 11-12.4, 11-12.6 to 11-12.8, WHSST 11-12.2, 11-12.4, 11-12.6, 11-12.8 to 11-12.10, A-SEE 1, A-CED1, 3, A-APR 1, A-REI 1, 3, 10, F-IF 1,2, 4, 5, 6, 9, F-LE 1, 3, N-Q 1-3, S-IC 1-6, S-ID 1, 5, 7, 9, PS1, PS2, PS3.C, LS.B, LS.C, ETS2, AD 12.2.1, 12.7, PE 12.4.2, 12.4.3, 12.5.2, US 11.11.3, 11.11.6, 11.11.7, HR 4, HI 3