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San Jacinto Unified School District New Course Proposal

Google Forms <forms-receipts-noreply@google.com>
To: sseward@sanjacinto.k12.ca.us

Wed, Jan 29, 2020 at 1:53 PM

Sports Med Lab

Thanks for filling out **San Jacinto Unified School District New Course Proposal**

Here's what we got from you:

EDIT RESPONSE

San Jacinto Unified School District New Course Proposal

For more information on how to complete this form please contact:

Janet Covacevich

Director, Secondary C & I

(951)929-7700 ext. 4263

jcovacevich@sanjacinto.k12.ca.us

Your email address (sseward@sanjacinto.k12.ca.us) was recorded when you submitted this form.



Signature Page must be printed and wet signed

Access Signature Page at this link <https://docs.google.com/a/sanjacinto.k12.ca.us/document/d/1TO2G1fXxR6WGNhinPY-oNaxtY130cZHUOjTT3Ntv5Zg/edit?usp=sharing>

School *

SJHS

New Course Proposal Submitted By: *

Seward

Course Title *

CTE Sports Medicine Lab

Transcript Title (15 characters or less) *

Please be sure to count each character and spaces used to be no more than 15.

CTESportsMEDAdv

Course Code (assigned by Data Management, extension 4221):

R0843

Academic Department *

CTE: Science-Biology/Life Science

Graduation Requirement Met *

Electives ▼

Honors (*note: Honors courses seeking A - G status must offer a non-Honors equivalent course) *

No ▼

Grade Level (check all that apply) *

☐ 6th

☐ 7th

☐ 8th

☐ 9th

☐ 10th

☒ 11th

☒ 12th

Pre-Requisite (list all that apply) *

Biology, Geometry, Algebra, English 2, Sports Med 1

Co-Requisite (list all that apply) *

Anatomy & Physiology

Possible credits *

10 - year long class ▼

Course Learning Environment *

- ☒ Classroom Based
☐ Online/Hybrid

CALPADS Course Code (assigned by Data Mgt.)

7942

Career Technical Education Courses

Will this course be part of CTE Pathways? *

Yes ▼

Is this an Integrated Course (Academics with Career Technical Education) *

No ▼

CTE Courses Only: Indicate the Level of the Course:

Completer ▼

CTE Courses Only: Indicate the Industry Sector

Health Science and Medical Technology ▼

CTE Courses Only: Career Pathway & Code Pathway Name

197, Health Science

Submitting Courses That are Program Status, Courses Modeled After Another Institution, or Online, or AP

Course Plans for Program Status, Online, or AP must be attached to this form.

Will this course meet any of the descriptors above? *

Yes ▼

Program Status Courses (can be auto approved) - Name the Exact Program and Course Title:

RCOE Sports Medicine Advanced

Submitting a Course Modeled After Another Institution:

When modeling after another institution's course, you will also need to enter a course overview specific to San Jacinto Unified School District as well as course content specific to SJUSD.

Any course modeled after another institution's course will not move forward until it has been written to reflect SJUSD's unique needs.

Submitting a course modeled after another institution.

Which school and ATP code? Must state exact course title.

Adopt an Online Publisher Course

Adopt a Program Status Course

Riverside County Office of Ed. ROP

Advanced Placement (AP) Courses Only: Please answer the following questions:

This section only applies to AP courses.

AP Courses Only: Date Submitted to CollegeBoard for AP Audit:

Month ▼

Day ▼

2020 ▼

Exact Course Title**CollegeBoard Authorization Code****Course Content**

Please note: There are not specific requirements regarding the number of units each course should have. For reference: University of California A-G Guide: <http://www.ucop.edu/agguide/a-g-requirements/index.html>
Copy and paste the link into your web browser for course samples.

Course Overview: Provide a brief summary (3 - 5 sentences) of the course's content. *

This rigorous competency-based course will provide students with unconditional concepts in anatomy and physiology and integrate hands-on training in the specialized fields of sports medicine, physical therapy and fitness instruction. Students will be required to think critically, draw conclusions, investigate, and formulate a plan of action to determine a proper course of care.

For EACH UNIT of the course, please provide:

1. A unit title
2. A concise 3 - 5 sentences describing the topics being addressed that demonstrate the critical thinking, depth, and progression of the content covered.
3. A brief 3 - 5 sentences summarizing a key assignment from this unit and covering:
 - a. how a student will complete this assignment
 - b. what a student will produce
 - c. what the student will learn

Most importantly, use the unit(s) and key assignment(s) to demonstrate that the course meets the subject specific course criteria on the A - G Guide.

Units (outline each unit in the section provided. Indicate new units with a number and title) *

This course will be lab-based.

A. An Introduction to sports med.

B. Ethical and Legal Considerations

C. Communication and Interpersonal Skills

SECTION D: Pharmacology

Students will demonstrate the proper use of an inhaler on a patient who has a history of asthma and experiences an asthma attack. Your 25 year-old male patient has a history of asthma and his family doctor prescribed an inhaler to be used whenever the patient experiences an asthma attack. Suddenly during an exercise the patient exhibits signs and symptoms of an asthma attack. Write a lab report showing how you will assist the patient with the prescribed medication, the effects of the treatment, and its contraindications. Utilize lab rubric for assessment.

Demonstrate the proper use of EpiPen on a patient with an allergic reaction caused by a bee sting.

SECTION E: Nutrition and Weight Management

Students will complete a nutritional analysis using the USDA

ChooseMyPlate.gov website. Using the SuperTracker on the website, students will plan, analyze, and track their diet and physical activity for 3 days. In a lab report, students will analyze and interpret their data and decide whether they would benefit from a nutritional or physical lifestyle change. Utilize lab rubric for assessment.

SECTION F: Physical Fitness Assessment

Measure the body fat of three classmates using skinfold calipers and the Tanita scale. Students will analyze and interpret the data, comparing its results by constructing a data table. Students will analyze their findings to align with their own personal weight goals. Students will then use mathematic equations to design physical fitness goals for athletes. Utilize lab rubric for assessment.

SECTION G: Physical Conditioning

In groups, students will measure each other's passive hamstring flexion with a goniometer. On the track, have one member of each group jog around the track and have the remaining group members measure passive hip flexion the moment they complete their jog. Repeat with each member of the group. Using PNF stretching, students will go through three cycles of contract-relax and record the final goniometer measurement. Students will chart the results and analyze the differences. Utilize lab rubric for assessment.

SECTION H: Emergency Preparedness and Assessment

Describe and demonstrate the implementation of emergency procedures in order to conduct primary and secondary surveys of injuries. Students will create emergency scenarios and role-play different responsibilities within the emergency plan. In a lab report, students will apply what they have learned and create an emergency action plan for their high school or home. Utilize lab rubric for assessment.

SECTION I: Infection Control

Students will explain and demonstrate how to properly don sterile gloves. Using ketchup as blood, students will show how to remove and properly dispose of contaminated gloves and conclude the activity by demonstrating the hand washing technique. In a 250-word lab report, students will apprise the importance of medical asepsis. Utilize lab rubric for assessment.

As a class, students will complete the infectious diseases test tube lab showing how easily diseases are spread when not utilizing body substance isolation and personal protective equipment. Students will draw conclusions as to which student in class was infected with the disease and graph the spread of the pathogen's life and reproduction. Utilize lab rubric for assessment.

SECTION J: Vital Signs Assessment

Measure, assess, and compare normal vital signs values.

Write a short 500-word script of what you would tell your client to explain the procedure as you begin taking the blood pressure. Utilize lab rubric for assessment.

Graph and compare the results for all the vital signs obtained from three clients. Compare each of the client's results with normal values. Write a note in the patient's charts on the results of the measurements. Utilize lab rubric for assessment.

Students will apply concepts in unpredictable situations where vital signs will be assessed on the field or in the clinical setting. Students will classify abnormal findings, communicate with medical personnel to draw conclusions, and critique referrals. In addition, students will cite findings in a patient care report (PCR) utilizing correct anatomy, physiology, medical terminology, medical abbreviations, as well as full patient history. Utilize lab rubric for assessment.

SECTION K: Basic Life Support

Describe and demonstrate CPR on manikins for the infant, child, and adult. Students will illustrate steps for recognizing and responding to emergency situations. They will apply concepts from emergency preparedness and the development of the emergency action plan and how to care of an unconscious person who is not breathing and does not have a pulse. Students will demonstrate proper assessment of breathing and circulation on a real-life partner and on a manikin. Use AHA skills sheet rubric for assessment.

In groups of two, students will be given a scenario where the use of an AED will be required. Since AED's are not always at the location of the patient, the first student will assess the patient and perform one-man CPR, while the other student runs to retrieve the AED. After retrieval, students will follow the prompts of the AED, performing two-man CPR. (Location of the AED and victim will change with each group). Write a 500-word lab report describing the chain of

survival and the importance of performing CPR and using an AED when available. Use AHA skills sheet rubric for assessment.

SECTION L: Injuries to the Tissues

Using the classroom skeletons, students will identify terms of position and direction, anatomical planes and sections, terms of movement, body cavities, and body regions. Students will apply the concepts of these terms in a teacher lead game of "Simon Says".

Using the, "Anatomy in Clay" models, in groups of three, students will take turns labeling the bones of the skeletal system. Group members will critique each other on their performance.

In small groups, students will investigate the classification of bones. Students will unpack the bones of a disarticulated human skeleton and spread the bones over their work space. Students will then divide the bones up into five piles according to their classifications. Groups will compare their piles of bones to the other groups and develop an argument as to whether they agree or disagree with others in the class.

Using the, "Anatomy in Clay" models, students will pair up with another classmate and construct the muscles of the human body on the skeletons with clay. Teacher will then assign one muscle to each student. Students will give a small presentation on how to properly manual muscle test their muscle while stating the muscles origin, insertion, and action. Utilize lab rubric for assessment.

Students will demonstrate the proper procedures for blood control including direct pressure, elevation, pressure points, and the use of a tourniquet.

Students will analyze different open wound injury scenarios and identify whether the bleeding is arterial, venous, or capillary. Utilize lab rubric for assessment.

Students will differentiate between the six main types of open wounds: abrasions, amputations, avulsions, crush injuries, punctures/penetrations, and lacerations. With a partner, students will apply the concepts of dressing, bandaging, and caring for each type of open wound.

In small groups, students will be given a specific scenario where they will assess the need for immobilizing a broken bone by applying the concepts of splinting. In a lab report, students will differentiate between the different types of splints and discuss materials that can be used for splinting if a commercial splint is not available. Utilize lab rubric for assessment.

Using a goniometer, students will take turns being a tester and a subject.

Students will measure and record the joint angles in degrees of their subject's elbows, knees, hips, and shoulders. Students will create a chart comparing their subject's range of motion (ROM) results to the average person's ROM.

Students will draw conclusions as to why some subject's ROM may be below or above the average. Utilize lab rubric for assessment.

List and demonstrate the five steps of the PRICE procedure for someone with a sprain. Choose a minor sports injury and describe how the PRICE procedure will be applied to your patient. Prepare a hand-out to the client explaining the benefits of the treatment. Utilize lab rubric for assessment.

Describe and demonstrate first aid and temporary care for the following conditions: sprains, strains, fractures, and dislocations. Create a poster showing first aid and temporary care for the above conditions. Utilize lab rubric for assessment.

Students will correctly select appropriate size and height of assisted devices and instruct partners on proper gait patterns utilizing crutches, canes, and walkers. Utilize lab rubric for assessment.

SECTION N: Injuries to the Head and Spine

Students will compare and contrast the SAC and SCAT 2 concussion testing techniques. In groups, students will take turns performing these tests on each other and analyze their results in a 500 word essay.

On the internet, students will complete a practice Impact concussion test and compare their results to other students in the class. Teacher will show the results of several Impact results of real patients.

In groups of 5-6, students will be given a scenario where they will assess the need for spine boarding a patient. They will develop a logical argument as to whether their patient should be spine boarded. Students will identify signs and symptoms of a spinal injury. The group will perform the task while the rest of the class critiques their technique.

Using the National Federation of State High School Associations website, students will complete the online concussion course and print the certificate when finished.

In groups of 2-3, students will "Build- a-Spine" with materials that they have brought from home. Students will creatively construct the entire human spinal column from the cervical vertebrae to the coccygeal. Options for materials include marshmallows, crackers, clay, paper cups, foam, foil, etc. Students will critique each groups projects ensuring that models reflect accurate size, have each vertebra labeled, and contain vertebral discs where appropriate.

SECTION O: Environmental Conditions

Perform patient assessment and treatment for cold emergencies. Write a note on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.

Instruct students on using and analyzing a digital sling psychrometer. Students will analyze the heat index graph and identify signs and symptoms of heat illness. Students will create a heat illness injury policy for a high school setting and how to prevent heat illness.

SECTION P: Medical Conditions

Perform patient assessment and treatment for diabetes. In a 500-word essay describe the effect inadequate insulin therapy has on ventilation. Explain why the change in ventilation is beneficial. Use correct grammar, punctuation, and grammar. Review and demonstrate the correct administration of oral glucose. Students will perform a patient assessment for a patient suffering from asthma. Students will demonstrate the proper use of an inhaler and how to assist a patient with administration. Students will write a summary on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.

Perform patient assessment and treatment for seizures. Write a summary on the assessment and treatment to be place in the patient's chart. Use correct grammar, punctuation, and grammar.

Perform patient assessment and treatment for appendicitis. Write a note on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.

Perform patient assessment and treatment for heart conditions. Write a note on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.

SECTION Q: Taping Techniques

Each student will be given a roll of athletic tape and will learn to rip tape by ripping the entire roll into one inch pieces. Students will pinch the tape between the index finger and thumb, pulling towards them, ripping the tape. If the tape folds or does not rip, instruct students to lengthen the tape and try ripping again in a different section. For a fun get-to-know- you activity, have students create a self- representation model out of the ripped tape. Have students present their tape creations to the class.

SECTION R: Therapeutic Modalities and Physical Rehabilitation

Course Materials

Provide the COURSE MATERIALS that students use and analyze throughout the course. When appropriate, please incorporate these materials into the course's unit descriptions in the COURSE CONTENT section. Some subject areas and disciplines require courses to include specific course materials. Please refer to the subject course criteria in the link above and/or the California Department of Education (<http://www.cde.ca.gov/ci/cr/cf/imagen.asp>) for more information.

Course Material

Please access the hyperlinked Google Slide deck for a sample of the required information for any course materials that will be used in the course.

Google Slide Deck Link w/samples

<https://docs.google.com/a/sanjacinto.k12.ca.us/presentation/d/1LaBuMtWAqL9bMaPKGQ8ooRZ6AZOLtS2PV0HGPudpYqo/edit?usp=sharing>

Select Course Material (select all that apply) *

- ☒ Textbook
- ☐ Literary Text
- ☒ Manual
- ☐ Periodical
- ☒ Scholarly Article
- ☒ Website
- ☐ Primary Document
- ☒ Multimedia
- ☐ Other

Course Material: Primary *

Sports Medicine Essentials (Thompson Delmar Learning)
BLS for Healthcare Providers (American Heart Association)
Essentials of Anatomy and Physiology (McGraw-Hill)
Foundations of Athletic Training (Lippincott Williams & Wilkins)

Course Materials: Additional (if applicable)

A-G Courses

For courses seeking A - G status please answer the questions below

Is this course being submitted for A-G status? *

Yes ▼

Subject for A - G status

- ☐ "A" History/Social Science
- ☐ "B" English
- ☐ "C" Mathematics
- ☐ "D" Lab Science

- ☐ "E" Language Other Than English
- ☐ "F" Visual and Performing Arts
- ☒ "G" Elective

Name the Discipline (i.e. US History, LOTE, Theater, etc.)

Science-Biology/Life Science

Is this an Integrated Course (Academics with Career Technical Education)

- ☐ Yes
- ☒ No

Does this course need to be retro-activated to a previous year?

No ▼

If yes, which year(s)?

- ☐ 2017-2018
- ☐ 2016-2017
- ☐ 2015-2016
- ☐ 2014-2015

Final Review

Please review your course prior to submission to ensure it meets all requirements, courses will not be moved forward until they have provided all the required information.

End of Course Submission

Before you submit, please verify that you have completed all required components for submission.

RCOE Sports Medicine Advanced

Riverside County Office of Ed. ROP

Basic Course Information

Title:	RCOE Sports Medicine Advanced
Transcript abbreviations:	Sports Medicine
Length of course:	Full Year
Subject area:	College-Preparatory Elective (G) / Science – Biology / Life Sciences
UC honors designation?	No
Prerequisites:	Biology, Geometry, Algebra, English 2 (Required)
Co-requisites:	Anatomy and Physiology (Required)
Integrated (Academics / CTE)?	Yes
Grade levels:	11th, 12th
Course learning environment:	Classroom Based, Online

Course Description

Course overview:

This rigorous competency-based course will provide students with foundational concepts in anatomy and physiology and integrate hands-on training in the specialized fields of sports medicine, physical therapy and fitness instruction. Anatomy and physiology are utilized as the basic building blocks in understanding how the circle of care occurs within sports medicine. The human body has many intricate parts with coordinated functions that are maintained by a complex system of checks and balances. Understanding the

structure and function of the human body allows individuals in sports medicine to utilize concepts that are mastered within the course to solve routine and non-routine problems. Students will be required to think critically, draw conclusions, investigate, and formulate a plan of action to determine a proper course of care and return the athlete safely to his or her activity.

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Emphasis is placed on ethical and legal considerations, pharmacology, nutrition and weight management, physical fitness assessment, physical conditioning, emergency preparedness, infection control, vital signs, basic life support (including AED and CPR), injuries to the tissues, injuries to the head and spine, environmental conditions, medical conditions, taping and wrapping, therapeutic modalities and physical rehabilitation. The competencies in this course are aligned with the California Common Core State Standards and the California Career Technical Education Model Curriculum Standards. This course develops students who are college and career ready.

Course content:

The shaded background of the following field indicates this course was approved by UC for the 2014-15 school year or earlier. Please refer to the current A-G course criteria and guidelines when completing your course submission form.

Section A. Introduction to Sports Medicine (Read: Clover, Ch. 1 Careers in Sports Medicine, pp. 1-9; Ch. 2 Athletic Training, pp. 10-17)

1. Identify the scope and purpose of the course.
2. Identify personal attributes required for a career in sports medicine.
3. Define sports medicine and athletic training.
4. Compare the different occupations in the Health Science and Medical Technology Industry Sector that have an impact on sports medicine.
5. State academic requirements and professional certifications.
6. Investigate the educational paths and employment opportunities for:
 1. Athletic Trainers'
 2. Physical Therapists
 3. Strength and Conditioning Specialists
 4. Business opportunities in health care
 5. Other field related to sports medicine and training
7. Define physical fitness.
8. Identify the history and evolution of sports medicine.
9. Explain the purpose of the California Occupational and Health Administration (Cal/OSHA) and its laws governing sports medicine.
10. Explain the athletic trainers' role in maintaining a safe workplace.

11. Summarize the importance of safety in a health care environment.

12. Create safety practices for the classroom, athletic training room, workout room and on site sports venues (gym, field).

SECTION B. ETHICAL AND LEGAL CONSIDERATIONS (Read: Clover, Ch. 4 Ethical and Legal Considerations, pp. 53-77)

1. Interpret the legal responsibilities associated with athletic training and fitness instruction.

2. Describe team ethics as they apply to different members of the health care team.

3. Explain the four principles of the National Athletic Trainers' Association Code of Ethics.

4. Describe risk management and explain how failure to provide proper care can result in liability or negligence.

5. Define standard of care and negligence.

6. Describe legal responsibilities and define the following terms:

1. Injury

2. Battery

3. Ethics

4. Malfeasance

5. Malpractice

6. Negligence

7. Nonfeasance

8. Risk management

9. Standard of care

10. Tort

7. Define confidentiality

8. Assess the elements of the patients' Bill of Rights and explain their importance in sports medicine.

9. Define risk management in an athletic setting

10. Summarize the Health Information Portability and accountability act of 1996 (HIPPA).

11. Predict legal outcomes regarding liabilities and responsibilities of the sports medicine team.

SECTION C. COMMUNICATION AND INTERPERSONAL SKILLS (READ: Clover, Ch. 1 Careers in Sports Medicine, pp. 6-9)

1. Define communication.

2. Discuss and demonstrate the following techniques to remove barriers in communication:

1. using clear verbal and body language to avoid confusion

2. being mindful of the demands on other peoples time

3. conversing and delivering the message to people of different backgrounds and cultures

3. Demonstrate and model nonverbal communication such as gestures, facial expressions, posture, body language, and touch.

4. Compare and contrast the elements of effective leadership.

5. Model effective leadership skills.

6. Demonstrate and critique good listening skills:

1. show interest

2. hear the message

3. do not interrupt

4. pay attention

5. maintain a positive attitude

7. Describe and distinguish elements that influence your relationship with others:

1. prejudices

2. biases

3. impatience

4. annoyance

8. List and define barriers to communication:

1. labeling

2. sensory impairment

3. talking too fast

4. cognitive impairment

9. Create scenarios to apply concepts learned while modeling good communication and listening skills.

SECTION D. PHARMACOLOGY (READ: Anderson and Parr, Pharmacology, pp. 892)

1. Explain medication storage and dispensing
2. Differentiate and demonstrate the following routes of drug administration:
 1. oral
 2. parenteral
 3. rectal
 4. sublingual
 5. vaginal
 6. inhalation
 7. topical
3. Discuss and demonstrate the six rights of medication administration:
 1. right drug
 2. right dose
 3. right route
 4. right time
 5. right patient
 6. right documentation
4. Apply the following math skills to sports medicine problems:
 1. estimation
 2. measurement
 3. calculation using the metric system of measurement
 4. changing standard measures to metric measures
 5. multiplication and division
 6. decimals, percentages, and fractions
 7. review of the 24 hour clock/military time
5. Nervous system
 1. Construct the anatomy of the nervous system
 2. List the functions of the nervous system
 3. Explain the functions of the respiratory system:
 1. i. gas exchange
 2. ii. regulation of blood pH
 3. iii. voice production
 4. iv. olfaction
 5. v. innate immunity
 4. Explain the change in the respiratory rate caused by allergies or certain medical conditions (e.g. asthma)
 5. Explain the use and effects of the bronchodilator medication.
 6. Explain the use and effects of epinephrine (EpiPen)
 7. List and describe airborne pathogens.
 8. Compare the difference between viruses and bacteria.
 9. Describe the use of antibiotics for bacterial infections.
6. Lymphatic System and Immunity
 1. List the functions of the immune system.
 2. Describe the process of inflammation, and explain why inflammation protects the body.
 3. Explain the use and effects of anti-inflammatory and analgesic medication.

SECTION E. NUTRITION AND WEIGHT MANAGEMENT (READ: Clover, Ch. 6 Nutrition and Weight Management, pp. 103-138)

1. Explain the importance of the healthy diet in healthy body in athletes.
2. Categorize the body systems and their role in nutrition.
 1. Digestive System
 1. i. Construct the anatomy of the following components of the digestive system:

1. esophagus
2. stomach
3. small intestine
4. large intestine
5. liver
6. pancreas
7. ii. List the functions of the digestive system.
8. iii. Define and list the functions of the following:
 1. carbohydrates
 2. proteins
 3. fats
 4. cholesterol
 5. fiber
 6. vitamins
 7. minerals
 8. water
9. iv. Describe the digestion, absorption, and transport of:
 1. carbohydrates
 2. lipids
 3. proteins
4. v. Summarize the relationship between digestion and metabolism.
5. vi. Explain water movement into and out of the digestive tract.
6. vii. Define calories and compare foods low/high in calorie content.
7. viii. Apply the following math skills to sports therapy problems:
 1. estimation
 2. measurement
 3. multiplication and division
 4. decimals, percentages, and fractions
 5. charts, graphs, and tables
6. ix. Compare energy balance, how calories relate to weight maintenance, weight loss and weight gain.
7. x. Compare different physical activities and analyze how they affect caloric expenditures.
8. xi. Differentiate relationship between weight control and energy balance:
 1. Weight loss
 2. Weight gain
3. xii. Compare and contrast the following eating disorders:
 1. Bulimia nervosa
 2. Anorexia nervosa
3. xiii. List and assess the nutritional requirements for athletes.
4. xiv. Formulate the relationship between athlete's nutrition and caloric intake congruent with: the sports they play, their age, gender, size, and shape.
5. xv. Classify the different sports and predict the caloric intake suggested for each sport.
6. xvi. Identify the nutrients within the food groups as established by the American Dietary Association (ADA).
7. xvii. Compare and contrast the six classes of nutrients and explain their importance.
8. xviii. Identify the leader nutrients that are supplied by each food group.
9. xix. Explain and summarize the importance of food labeling.

2. Endocrine System

1. i. List the functions of the endocrine system.
2. ii. Define homeostasis and assess the importance of the homeostatic mechanisms.
3. iii. Organize and list the major categories of hormones.
4. iv. Distinguish the location of each endocrine gland in the body.
5. v. Hypothesize how the endocrine system regulates body functions and how imbalances can affect the athletes.

3. Reproductive System

1. i. Construct the anatomy of the reproductive system.
2. ii. List the functions of the reproductive system.
3. iii. Explain and relate the effects of exercise on the production of estrogen and testosterone.
4. iv. Debate the cause and effect of steroid use in athletes.

SECTION F. PHYSICAL FITNESS ASSESSMENT (READ: Clover, Ch. 5 Physical Fitness Assessment, pp. 79-101)

1. Relate the importance of healthy body systems and physical fitness.
2. Classify the main body systems involved in fitness exercises.
3. Describe fitness evaluation and connect the importance of having an evaluation report done by the personal physician prior to the onset of physical activity.
 1. i. Construct the anatomy of the heart and the circulatory system.
 2. ii. List the functions of the heart
 3. iii. Analyze cardiovascular endurance:
 1. measure the heart rate
 2. determine resting heart rate
 3. pulse recovery step test
 4. Respiratory System
 1. i. Construct the anatomy of the respiratory system.
 2. ii. List the functions of the respiratory system.
 3. iii. Analyze the change in the respiratory rate caused by exercising.
 4. Skeletal System
 1. i. Construct the anatomy of the skeletal system.
 2. ii. List the functions of the skeletal system.
 3. Muscular System
 1. i. Construct the anatomy of the muscular system.
 2. ii. List the functions of the muscular system.
 3. iii. Compare the types of muscles.
 4. iv. Differentiate the types of muscle contractions.
 5. v. Design muscular endurance evaluations:
 1. Bent-leg sit-ups
 2. Push-ups
 3. Modified push-ups
 4. Bench jump or step
 5. vi. Design flexibility evaluations:
 1. sit and reach
 2. back bend
 3. vii. Investigate body composition evaluation methods:
 1. measure body fat
 2. determine muscle gain or loss
 3. viii. Analyze the assessments and compare to specific fitness standards.

SECTION G. PHYSICAL CONDITIONING (READ: Clover, Ch. 7 Physical Conditioning, pp. 140-180)

1. Critique the importance of the following for athletes: good hydration, electrolyte balance, and elimination.

1. Urinary System

1. i. Construct the anatomy of the urinary system.
2. ii. List the functions of the urinary system.
3. iii. Investigate the regulation of acid-base balance.
4. iv. Classify the major body fluid compartments.
5. v. Illustrate the mechanisms by which Na^+ , K^+ , and Ca^{++} are regulated in the extracellular fluid.
6. vi. Describe the mechanisms that regulate the body fluid pH function by explaining how they respond to decreasing and increasing pH in the body fluids.

7. Cardiovascular System

1. i. Construct the anatomy of the cardiovascular system.
2. ii. List the functions of the cardiovascular system.
3. iii. Compare different cardiovascular exercises:
 1. power walking
 2. running and jogging
 3. aerobics and step classes
 4. bicycling

5. Muscular System

1. i. Review the anatomy and physiology of the skeletal and muscular system.
2. ii. Describe and model physical conditioning exercises.
3. iii. Describe and model flexibility exercises:
 1. lateral neck stretch
 2. chest stretch
 3. triceps stretch
4. iv. Model and compare strengthening exercises:
 1. isometric exercises
 2. isotonic exercises
 3. isokinetic exercises

SECTION H. EMERGENCY PREPAREDNESS AND ASSESSMENT (READ: Clover, Ch. 8 Emergency Preparedness and Assessment, pp. 210-231)

1. Perform and assess primary and secondary surveys of injuries.
2. Assess primary survey:
 1. airway
 2. breathing
 3. circulation
4. Design and practice an emergency action plan.
5. Differentiate body planes and directional terms that enable you to describe location of pain or injury.

SECTION I. INFECTION CONTROL (READ: Clover, Ch. 11 Infection Control, pp. 256-270)

1. Explain and model the use of standard precautions.
2. List and organize the chain of infection.
3. Compare the risks of infection, hepatitis and AIDS.
4. Review the anatomy and functions of the immune system.
5. Identify the signs and symptoms of infection.
6. Compare clean techniques and sterile techniques.
7. Explain and model the use of gloves to protect yourself and others.

SECTION J. VITAL SIGNS ASSESSMENT (READ: Clover, Ch. 12, Vital Signs Assessment, pp. 272-293)

1. Review homeostasis and explain the importance of the homeostatic mechanisms with:
 1. temperature
 2. blood pressure

3. pulse
4. Explain and connect the role of vital signs as they affect the client.
5. Apply the following math skills to sports medicine problems:
 1. measurement
 2. calculation using the metric system of measurement
 3. changing standard measures to metric measures
 4. graph and charts
 5. Explain and model effective procedures used to obtain the following vital signs:
 1. blood pressure
 2. pulse
 3. respirations
 4. temperature

SECTION K. BASIC LIFE SUPPORT (READ: Clover, Ch. 13 Basic Life Support, pp. 294-305 READ: Hazinski, entire)

1. Review the anatomy and physiology of the cardiovascular system.
2. Critique and debate the Good Samaritan Law.
3. Organize lifesaving procedures.
4. Identify the components of the first aid kit.
5. Illustrate the chain of survival.
6. Explain and model the proper use of the Automated External Defibrillator (AED).
7. Explain and model components of Cardiopulmonary Resuscitation (CPR).
8. Compare and contrast sudden cardiac arrest and heart attack.
9. Explain and model an obstructed airway maneuver.
10. Explain and model log roll procedure.
11. Pass the Basic Life Support test offered by a nationally recognized governing body: American Heart Association (AHA).

SECTION L. INJURIES TO THE TISSUES (READ: Clover, Ch. 14, Injuries to Tissues, pp. 306-343)

1. Describe the effects of injuries on cells, tissues, skin, bones, and muscles.
2. Describe the importance of the cell as a basic living unit of all organisms.
 1. Cell structure and function
 1. i. Illustrate the structure and anatomy of a cell.
 2. ii. List the functions of the cell.
 3. Tissues
 1. i. Discuss the structure and the functions of the following types of tissue cells:
 1. epithelial tissue
 2. connective tissue
 3. muscular tissue
 4. nervous tissue
 5. ii. Explain tissue response to physical injuries.
 6. iii. Explain the importance of tissue repair.
 7. iv. Classify the types of soft tissue injuries.
 8. v. Explain and model the general principles of wound care.
 9. vi. Explain poison control.
 10. vii. Identify bites and stings.
 11. viii. Describe hematomas and contusions.
 12. ix. Classify the signs, symptoms, and treatment of the following soft tissue injuries:
 1. abrasions
 2. lacerations
 3. puncture wounds
 4. incisions
 5. avulsions

6. calluses

7. blisters

8. Lymphatic System and Immunity

1. i. Review the functions of the immune system.
2. ii. Review the process of inflammation and explain why inflammation protects the body.

3. The Integumentary System

1. i. Construct the anatomy of the integumentary system.
2. ii. List the functions of the integumentary system.
3. iii. Explain the function of skin color, pigmentation.
4. iv. Differentiate between a variety of skin infections and other dermatological conditions.

5. Skeletal System

1. i. Review the anatomy and physiology of the skeletal system.
2. ii. Explain and apply prevention and treatment of injuries to the upper extremities and lower extremities.
3. iii. Explain and apply the evaluation process for injuries to the upper extremities and lower extremities.
4. iv. Classify the types of injuries to the upper extremities and lower extremities.
5. v. Classify the types of joints relative to specific joints in the body.
6. vi. Classify the signs, symptoms, and treatment of the following injuries to the joints:
 1. ligament and capsular sprains
 2. dislocations and subluxations
 3. synovitis and bursitis
4. vii. Recognize various mechanisms of injury and how they can cause harm to the body.
5. viii. Explain and model the following treatment techniques:
 1. manual treatment
 2. ice massage
 3. massage therapy
4. ix. Classify the types of fractures and specific treatments.
5. x. Identify the following physical dysfunctions and disorders of the skeletal system:
 1. joint disease
 2. bone diseases
 3. amputations
4. xi. Review the anatomy of the following locations:
 1. foot
 2. ankle
 3. lower leg
 4. knee
 5. thigh
 6. hip
 7. wrist
 8. hand
 9. forearm

10. elbow

11. upper arm

12. shoulder

1. Muscular System

1. i. Review the anatomy and physiology of the muscular system
2. ii. Identify the following physical dysfunctions and disorders of the muscular system:
 1. common injuries
 2. muscle disease
 3. connective tissue diseases
 4. contractures
5. iii. Classify the signs, symptoms, and treatment of the following injuries to the muscle tissue:
 1. muscle strain
 2. tendinitis

SECTION M. MID-TERM EXAMINATION (REVIEW: Clover)

SECTION N. INJURIES TO THE HEAD AND SPINE (READ: Clover, Ch. 15, Injuries to the Head and Spine, pp. 346-385)

1. Predict the systems that can be affected by injuries to the head and spine.

2. Nervous System

1. i. Review the function of the following:
 1. peripheral nervous system
 2. central nervous system
 3. nerve cell
 4. spinal cord
 5. reflexes
6. ii. Analyze the effect of a concussion on the brain.
7. iii. Review and construct the anatomy of the following:
 1. head
 2. neck
 3. back
 4. spinal column
5. iv. Classify signs, symptoms, and treatment of the following:
 1. head injuries
 2. spine injuries
3. v. Identify the following physical dysfunctions and disorders of the nervous system:
 1. stroke
 2. spinal cord injuries
 3. transient ischemic attack
 4. infections
5. vi. Degenerative disorders
6. Senses
 1. i. List the general and special senses.
 2. ii. Critique the relationship between hearing and balance.
 3. iii. Classify the signs, symptoms, and treatment of the following:
 1. eye injuries
 2. ear injuries
 3. nose injuries
 4. iv. Describe the following injuries to the ear:
 1. otitis externa (swimmer's ear)
 2. rupture of the tympanic membrane
 3. foreign bodies in the ear
 4. v. Describe the following injuries to the eye:
 1. contusions

2. corneal abrasions or lacerations
3. retinal detachment
4. foreign bodies and embedded objects
5. fractures
6. conjunctivitis
7. sty
8. contact lens complications
9. vi. Describe the following injuries to the nose:
 1. nosebleed (epistaxis)
 2. nasal septal deviation
 3. nasal fractures
4. vii. Describe the following injuries to the mouth and jaw:
 1. jaw fractures
 2. dislocations and fractures of the teeth
3. viii. Construct the anatomy of the spine
4. ix. Describe the following injuries to the spine:
 1. contusions
 2. abnormal curvatures of the spine
 3. back sprains
 4. back strains
 5. fractures and dislocations
 6. intervertebral disc herniation

SECTION O. ENVIRONMENTAL CONDITIONS (READ: Clover, Ch. 19 Environmental Conditions, pp. 500-516)

1. Predict environmental conditions that are likely to produce changes on the human body.
2. Assess thermoregulation and core temperature.
3. Review the anatomy and physiology of the muscular system.
4. Review that anatomy and physiology of the cardiovascular system.
5. Review homeostasis and explain the importance of the homeostatic mechanisms in the body temperature regulation.
6. Connect sunburn as a form of environmental heat stress.
7. Identify and describe the following heat related illnesses:
 1. heat cramps
 2. heat exhaustion
 3. heatstroke
4. Design guidelines for preventing heat related disorders.
5. Identify and describe environmental cold related illnesses:
 1. a. hypothermia.
 2. b. frostbite.

SECTION P. MEDICAL CONDITIONS (READ: Clover, Ch. 20, Medical Conditions, pp. 518-526)

1. Identify and describe medical conditions affecting athletes:
 1. diabetes mellitus
 2. hypoglycemia and insulin shock
 3. asthma
 4. seizure disorders (epilepsy)
 5. appendicitis
 6. genetic heart conditions
 7. common viruses

SECTION Q. TAPING AND WRAPING (READ: Clover, Ch. 21, Taping and Wrapping, pp. 527-557)

1. Review the anatomy and physiology of the skeletal and muscular system.
2. Review the anatomy of the upper and lower extremities.
3. State the proper use and storage of athletic tape.
4. Describe and model potential pitfalls of taping techniques.
5. Connect the purpose of several different taping techniques.
6. Explain and model the use of combination elastic and non-elastic tape ankle strapping.
7. Identify and compare different taping techniques.
8. Identify and compare wrapping techniques.

SECTION R. THERAPEUTIC MODALITIES AND PHYSICAL REHABILITATIONS (READ: Clover, Ch. 23, Therapeutic Modalities, pp. 576-604, Ch. 24 Physical Rehabilitation, pp. 606-641)

1. Identify therapeutic modalities and their use in rehabilitation.
2. List and demonstrate methods of heat and cold transfer:
 1. cryotherapy
 2. thermotherapy
3. Compare superficial and deep heating agents.
4. Classify electrical modalities.
5. Classify mechanical modalities.
6. Apply the following components of the rehabilitation environment:
 1. patient safety
 2. patient needs
 3. patient comfort
 4. staff conduct
5. Apply patient assessment procedures.
6. Describe and demonstrate the phases of rehabilitation.
7. Critique the importance of patient education in the following areas:
 1. activities of daily living (ADLs)
 2. nutritional needs
 3. crutches and other mobility aids

SECTION S. FINAL EXAMINATION (REVIEW: Clover,)

INSTRUCTIONAL METHODS AND/OR STRATEGIES

A, Lecture, Power Point presentations, videos (DVDs, YouTube) short documentaries, and class discussions

Lecture will be presented in a way to reach all types of learners: visual, auditory, and kinesthetic. Discussions will include but are not limited to: teacher guided questions, role-play, critical thinking, and problem-solving tasks. This method introduces and expands the students understanding of sports medicine theoretical and application component. All sections of the Course Outline from Section A through Section S.

B. Internet Use

Instructor will guide students in developing skills in Information Literacy including the presentation of and accuracy of content on Internet sites. Internet research will supplement text readings throughout the course, but especially in the following sections in order to find:

- Section A: sites that focus on evolution and history of Sports Medicine
 - Research Internet sites that focus on information on evolution and history of Sports Medicine. Write a 450-word essay on the history of Sports Medicine.

- Section C: sites that focus on benefits for health care jobs
 - Some jobs pay less, but have excellent benefits. Other jobs pay more but provide only minimum benefits. Research the internet for two jobs in health care. Calculate the full value of each job by determining the dollar value of the salary, health insurance, paid vacation time, retirement benefits, and life insurance. Make a presentation of a chart showing the findings and compare and evaluate which job is best for you.

- Section C: sites that focus on number of employees in a hospital
 - Research the number of employees at a hospital (doctors, registered nurses, nurse aides, physical therapists). Convert the numbers into percentages, and create a circle graph (pie chart) to show percentages of employees.

- Section C: sites about sports and types of equipment used in each sport
 - Research the sports at your school or on the internet and list the sports equipment used by athletes in each sport.

- Section E: sites that focus on food groups and food sources
 - Research and identify the food groups, and list several food sources in each group.

- Section E: find sites that help you calculate and interpret your BMI (body mass index)
 - Research the internet for calculations of BMI (body mass index) and compare and contrast to your BMI. Interpret the result.

- Section F: sites that give information about places that offer fitness evaluation
 - Use the Internet or business telephone directory to see where someone should go to get a fitness evaluation. List three possibilities and give a brief description of the place.

- Section F: sites about sports and types of assessments necessary for athletes
 - Research the sports at your school or on the internet and list the types of physical assessments required for athletes.

- Section P: sites that focus on medical conditions and treatment
 - Select and research a chronic disease and write an explanation of potential symptoms and complications.

- Section C: sites that focus on benefits for health care jobs

◦ Some jobs pay less, but have excellent benefits. Other jobs pay more but provide only minimum benefits. Research the internet for two jobs in health care. Calculate the full value of each job by determining the dollar value of the salary, health insurance, paid vacation time, retirement benefits, and life insurance. Make a presentation of a chart showing the findings and compare and evaluate which job is best for you.

C. Visual aids

Graphs, charts, diagrams, and lifelike human models will be used throughout the lectures and discussions. Human partner models will also be used for labs and skills activities. Teacher will demonstrate the creation and use of charts, graphs, and diagrams.

- Section E: Creating a chart with the measured amount of calories consumed everyday for a week and calculating the total amount consumed during that week
- Section E: Creating a chart of the functions of the digestive system: enzyme, source, and function
- Section E: Creating a diagram that shows the digestion of food molecules.
- Section G: Creating a chart with the benefits of exercising on the bone structure and function
- Section G: Identifying the parts of the respiratory system on a lifelike model
- Section G: Identify the main muscles on a lifelike human model
- Section G: Creating a chart with the functions of the endocrine system with emphasis on water balance.
- Section G: Creating a chart that illustrates the functions of the urinary system, the importance of these functions, and the main parts of the urinary system responsible for these functions
- Section H: Identifying the body planes on a human body diagram
- Section I: Identifying on a chart the difference between viruses and bacteria
- Section J: Creating a chart with the respiratory rate before, during, and after exercising
- Section J: Creating a table with a given set of body temperatures taken at different hours of the day
- Section J: Creating graph and comparing the results for all the vital signs obtained from three clients
- Section H: Identifying the body planes on a human body diagram

- Section L: Creating a chart with different types of tissue
- Section L: Identifying the main muscles of the upper and lower extremities on a lifelike human model
- Section L: Naming the organelles on a blank cell diagram
- Section L: Placing colored threads on the human skeletal model to show insertions of the main muscles on the upper and lower extremities
- Section N: Identifying the parts of the spinal column on a blank diagram
- Section N: Identifying the parts of the brain on a lifelike human brain
- Section N: Identifying the parts of the skull on a human skull model

D. Skills / Labs

Using hands on activities and demonstrations will allow students to put in practice the theoretical part of the course. Teacher will demonstrate the skills, will assist the students practicing the skills, and will allow students to work in groups in order to acquire the level of comfort and confidence necessary in health care professions.

- Section D: Demonstrate the proper use of an inhaler on a patient who has a history of asthma and experiences an asthma attack
- Section D: Demonstrate the proper use of EpiPen on a patient with an allergic reaction caused by a bee sting
- Section E: Access resources to calculate nutritional intakes to plan and analyze specific diets
- Section F: Measure and calculate body fat percentages
- Section F: Measure and calculate BMI
- Section G: Demonstrate flexibility exercises
- Section H: Demonstrate the implementation the emergency procedures

- Section H: Create an emergency action plan
- Section I: Demonstrate the removal of blood-stained gloves and clothing
- Section I: Complete the infectious diseases test tub lab
- Section J: Vital Signs: measure, assess, and compare with normal values
- Section J: Measure temperature, blood pressure, and pulse
- Section J: Measure the weight in pounds and kilograms
- Section J: Measure the height in feet and meters
- Section K: Demonstrate CPR on manikins: adult, child, and infant
- Section K: Demonstrate the use of the AED on the manikin
- Section K: Demonstrate the skills necessary to help a choking victim
- Section K: Demonstrate the log roll procedure and face mask removal
- Section L: Demonstrate effective procedure to control bleeding
- Section L: Demonstrate splinting
- Section L: Demonstrate the proper use of crutches, canes, and walkers
- Section L: Demonstrate testing range of motion (ROM) using a goniometer
- Section L: Demonstrate manual muscle tests for the upper and lower extremities
- Section L: Demonstrate and list the five steps of PRICE procedure for someone with a sprain

Rest

Ice

Compress

Elevate

- Section L: Demonstrate first aid and temporary care for the following conditions:
 1. Sprains
 2. Strains
 3. Fractures
 4. Dislocations

- Section L: Perform patient assessment and treatment for contusions, sprains, and strains

- Section N: Perform baseline concussion testing such as (SAC, SCAT2, and Impact)

- Section N: Identify the sign and symptoms of a spinal injury and perform spine boarding

- Section N: Build a spine model from household materials

- Section O: Perform patient assessment and treatment for heat emergencies

- Section O: Perform patient assessment and treatment for cold emergencies

- Section P: Perform patient assessment and treatment for diabetes

- Section P: Perform patient assessment and treatment for asthma

- Section P: Perform patient assessment and treatment for seizures

- Section P: Perform patient assessment and treatment for appendicitis

- Section P: Perform patient assessment and treatment for heart conditions

- Section Q: Demonstrate different tapping techniques

- Section Q: Demonstrate wrapping techniques

ASSESSMENT METHODS AND/OR TOOLS

READING *

WRITING *

LISTENING & SPEAKING *

- - For English- "g" elective courses

1. Sports Medicine Assignments

1. Writing Assignments

1. i. Writing assignments allow students to demonstrate competencies in sports medicine by: research, use of specific applications, synthesize information, identify complexities, and discrepancies.
2. ii. Students will be encouraged to use medical terms and abbreviations accurately at all times.
3. iii. Students will practice spelling and proper grammar through several writing assignments (essays).
4. iv. Students will make observations, predict results, and draw conclusions by using the scientific process.

2. Key Assignments

1. i. Key assignments will allow the students to organize the information, practice specific application of measurement and conversion, comparison, estimation, multiplication, and division.
2. ii. Students will identify normal and abnormal values and will be able to create charts, tables, and diagrams on given information.
3. iii. The assignments will allow the students to learn medical terminology, practice spelling by identifying the rules and the parts of each medical term such as: prefixes, suffixes, and root words.
4. iv. Students will use military time in several patient care scenarios.
5. v. Students will gather information about their clients and demonstrate accuracy and precision in record keeping by using different forms (e.g. risk acknowledgement and consent to participate, emergency insurance information and consent, pre-participation physical evaluation, and special instructions).

6. Presentation Projects and Games

1. Students will improve writing communication skills through several group and individual projects.
2. The group projects will help students practice team work and leadership skills.
3. Each project will have a writing assignment, which will require research, a group presentation, and a poster created by the group. Students will be required to illustrate a picture of the given topic and identify and construct the main parts by labeling the poster.
4. The information presented for the project has to be accurate and students are encouraged to use internet, library, or magazine resources.
5. Students will develop power point presentations by using research questions and creative and critical organization and presentation of the collected data.
6. Each presentation will combine text, images, sound (if necessary), interactive games or questions and answers from the presented topic.
7. Students will demonstrate listening and speaking proficiencies by delivering narrative in expository presentations, applying appropriate interviewing techniques, and delivering persuasive arguments.
8. Games (e.g. Bingo, Jeopardy, and Simon Says) will be incorporated throughout the class as a way for students to compete with other classmates to review and improve their knowledge of anatomy and medical

terminology.

9. Lab and Technology Proficiency

1. Students will connect the benefits of technology to the learning process. Technology will be used for all presentations, projects, writing assessments, and research.
2. Students will utilize the computer lab for research projects (e.g. job search, certificates required for health industry jobs, job openings, salaries).
3. Both skills and laboratory activities will give students the ability to demonstrate hands-on activities.
4. Laboratory activities will give the students a chance to not only visualize body parts but also be able to have a better understanding of the information they acquired through the theoretical part of the class.
5. The skills will help the students practice the care necessary for certain injuries suffered by a patient due to sports injuries.
6. Students will utilize lab rubric for assessment.

1. Examinations and Quizzes

1. Students will receive different types of assessment throughout the course of the class.
2. The projects and presentations will be graded and assessments will be measured and valued using a rubric with key components for credit.
3. Students will have weekly quizzes given either as multiple choice, fill in the blank, true/false, or short answer.
4. The course will also have a multiple-choice midterm and final exam with multiple-choice questions and an essay. Students can choose any of the three essay topics.
5. Students must pass the midterm and final examination with 80% or better.
6. Students must pass the AHA Healthcare Provider course with an 84% or better.

Course Evaluation

Students will be graded based on:

- Sports Medicine Assignments – 30%
- Projects, Presentations, Class activities, Games – 15%
- Labs and Skills Examinations – 30%
- Quizzes, Midterm, Final Examination – 25%

Grading Scale

- A 100 – 90% (exceptional/outstanding)
- B 89 – 80 % (meets some of the requirements)
- C 79 – 70% (meets minimum requirements)
- D 60% and below (not passing)

Attendance

Students are encouraged to strive for excellent attendance. Chronic tardiness will not be tolerated. Your presence in class is important because there will be lots of hand-on activities and labs. Much of the learning takes place during class through interactive lectures and class activities.

LABORATORY ACTIVITIES

Using hands-on activities and demonstrations will allow students to practice the theoretical part of the course. Teacher will demonstrate the skills, will assist the students practicing the skills, and will allow students to work in groups in order to acquire the level of comfort and confidence necessary in the health care professions.

- **SECTION D: Pharmacology**

- Students will demonstrate the proper use of an inhaler on a patient who has a history of asthma and experiences an asthma attack. Your 25 year-old male patient has a history of asthma and his family doctor prescribed an inhaler to be used whenever the patient experiences an asthma attack. Suddenly during an exercise the patient exhibits signs and symptoms of an asthma attack. Write a lab report showing how you will assist the patient with the prescribed medication, the effects of the treatment, and its contraindications. Utilize lab rubric for assessment.
- Demonstrate the proper use of EpiPen on a patient with an allergic reaction caused by a bee sting. While on the field a football player got stung by a honey bee on his left arm. He starts having hives, the skin is red and inflamed at the arm site and he starts complaining of shortness of breath. He has a prescription for epinephrine and his EpiPen is in his gear bag. Complete a lab report analyzing what is happening to the football player, the results of the treatment, and the contraindications of administering Epinephrine. Utilize lab rubric for assessment.

- **SECTION E: Nutrition and Weight Management**

- Students will complete a nutritional analysis using the USDA Choosemyplate.gov website. Using the SuperTracker on the website, students will plan, analyze, and track their diet and physical activity for 3 days. In a lab report, students will analyze and interpret their data and decide whether they would benefit from a nutritional or physical lifestyle change. Utilize lab rubric for assessment.

- **SECTION F: Physical Fitness Assessment**

- Measure the body fat of three classmates using skinfold calipers and the Tanita scale. Students will analyze and interpret the data, comparing its results by constructing a data table. Students will analyze their findings to align with their own personal weight goals. Students will then use mathematic equations to design physical fitness goals for athletes. Utilize lab rubric for assessment.
- Calculate the Body Mass Index (BMI) of three classmates using the non-metric formula and the Tanita scale. Students will analyze and interpret the data, comparing its results by constructing a data table. Students will write a 500 word lab write up explaining why health classifications from body fat estimates are more accurate as compared to the weight classifications from the traditional life insurance tables. Utilize lab rubric for assessment.

- **SECTION G: Physical Conditioning**

- In groups, students will measure each other's passive hamstring flexion with a goniometer. On the track, have one member of each group jog around the track and have the remaining group members measure passive hip flexion the moment they complete their jog. Repeat with each member of the group. Using PNF stretching, students will go through three cycles of contract-relax and record the final goniometer measurement. Students will chart the results and analyze the differences. Utilize lab rubric for assessment.

- **SECTION H: Emergency Preparedness and Assessment**

- Describe and demonstrate the implementation of emergency procedures in order to conduct primary and secondary surveys of injuries. Students will create emergency scenarios and role-play different responsibilities within the emergency plan. In a lab report, students will apply what they have learned and create an emergency action plan for their high school or home. Utilize lab rubric for assessment.

- **SECTION I: Infection Control**

- Students will explain and demonstrate how to properly don sterile gloves. Using ketchup as blood, students will show how to remove and properly dispose of contaminated gloves and conclude the activity by demonstrating the hand washing technique. In a 250-word lab report, students will apprise the importance of medical asepsis. Utilize lab rubric for assessment.
- As a class, students will complete the infectious diseases test tube lab showing how easily diseases are spread when not utilizing body substance isolation and personal protective equipment. Students will draw conclusions as to which student in class

was infected with the disease and graph the spread of the pathogen's life and reproduction. Utilize lab rubric for assessment.

■ **SECTION J: Vital Signs Assessment**

- Measure, assess, and compare normal vital signs values. Write a short 500-word script of what you would tell your client to explain the procedure as you begin taking the blood pressure. Utilize lab rubric for assessment.
- Graph and compare the results for all the vital signs obtained from three clients. Compare each of the client's results with normal values. Write a note in the patient's charts on the results of the measurements. Utilize lab rubric for assessment.
- Students will apply concepts in unpredictable situations where vital signs will be assessed on the field or in the clinical setting. Students will classify abnormal findings, communicate with medical personnel to draw conclusions, and critique referrals. In addition, students will cite findings in a patient care report (PCR) utilizing correct anatomy, physiology, medical terminology, medical abbreviations, as well as full patient history. Utilize lab rubric for assessment.

■ **SECTION K: Basic Life Support**

- Describe and demonstrate CPR on manikins for the infant, child, and adult. Students will illustrate steps for recognizing and responding to emergency situations. They will apply concepts from emergency preparedness and the development of the emergency action plan and how to care of an unconscious person who is not breathing and does not have a pulse. Students will demonstrate proper assessment of breathing and circulation on a real-life partner and on a manikin. Use AHA skills sheet rubric for assessment.
- In groups of two, students will be given a scenario where the use of an AED will be required. Since AED's are not always at the location of the patient, the first student will assess the patient and perform one-man CPR, while the other student runs to retrieve the AED. After retrieval, students will follow the prompts of the AED, performing two-man CPR. (Location of the AED and victim will change with each group). Write a 500-word lab report describing the chain of survival and the importance of performing CPR and using an AED when available. Use AHA skills sheet rubric for assessment.
- Describe and perform the skills necessary to help a choking victim. Students will differentiate how to care for a choking adult, child, and infant. Students will demonstrate how and when to perform an abdominal thrust and finger sweep. Use AHA skills sheet rubric for assessment.
- In small groups, students will demonstrate the proper procedures for log rolling a patient with a possible head and/or spine injury and how to properly strap them to a spine board. Students will demonstrate facemask removal to access the airway for a football player with a possible spinal injury. Write a 500-word lab report describing the signs and symptoms of an athlete with a possible spinal injury and the importance of immobilization. Use AHA skills sheet rubric for assessment.

■ **SECTION L: Injuries to the Tissues**

- Using the classroom skeletons, students will identify terms of position and direction, anatomical planes and sections, terms of movement, body cavities, and body regions. Students will

apply the concepts of these terms in a teacher lead game of "Simon Says".

- Using the, "Anatomy in Clay" models, in groups of three, students will take turns labeling the bones of the skeletal system. Group members will critique each other on their performance.
- In small groups, students will investigate the classification of bones. Students will unpack the bones of a disarticulated human skeleton and spread the bones over their work space. Students will then divide the bones up into five piles according to their classifications. Groups will compare their piles of bones to the other groups and develop an argument as to whether they agree or disagree with others in the class.
- Using the, "Anatomy in Clay" models, students will pair up with another classmate and construct the muscles of the human body on the skeletons with clay. Teacher will then assign one muscle to each student. Students will give a small presentation on how to properly manual muscle test their muscle while stating the muscles origin, insertion, and action. Utilize lab rubric for assessment.
- Students will demonstrate the proper procedures for blood control including direct pressure, elevation, pressure points, and the use of a tourniquet. Students will analyze different open wound injury scenarios and identify whether the bleeding is arterial, venous, or capillary. Utilize lab rubric for assessment.
- Students will differentiate between the six main types of open wounds: abrasions, amputations, avulsions, crush injuries, punctures/penetrations, and lacerations. With a partner, students will apply the concepts of dressing, bandaging, and caring for each type of open wound.
- In small groups, students will be given a specific scenario where they will assess the need for immobilizing a broken bone by applying the concepts of splinting. In a lab report, students will differentiate between the different types of splints and discuss materials that can be used for splinting if a commercial splint is not available. Utilize lab rubric for assessment.
- Using a goniometer, students will take turns being a tester and a subject. Students will measure and record the joint angles in degrees of their subject's elbows, knees, hips, and shoulders. Students will create a chart comparing their subject's range of motion (ROM) results to the average person's ROM. Students will draw conclusions as to why some subject's ROM may be below or above the average. Utilize lab rubric for assessment.
- List and demonstrate the five steps of the PRICE procedure for someone with a sprain. Choose a minor sports injury and describe how the PRICE procedure will be applied to your patient. Prepare a hand-out to the client explaining the benefits of the treatment. Utilize lab rubric for assessment.
- Describe and demonstrate first aid and temporary care for the following conditions: sprains, strains, fractures, and

dislocations. Create a poster showing first aid and temporary care for the above conditions. Utilize lab rubric for assessment.

- Students will correctly select appropriate size and height of assisted devices and instruct partners on proper gait patterns utilizing crutches, canes, and walkers. Utilize lab rubric for assessment.
- SECTION N: Injuries to the Head and Spine
 - Students will compare and contrast the SAC and SCAT 2 concussion testing techniques. In groups, students will take turns performing these tests on each other and analyze their results in a 500 word essay.
 - On the internet, students will complete a practice Impact concussion test and compare their results to other students in the class. Teacher will show the results of several Impact results of real patients.
 - In groups of 5-6, students will be given a scenario where they will assess the need for spine boarding a patient. They will develop a logical argument as to whether their patient should be spine boarded. Students will identify signs and symptoms of a spinal injury. The group will perform the task while the rest of the class critiques their technique.
 - Using the National Federation of State High School Associations website, students will complete the online concussion course and print the certificate when finished.
 - In groups of 2-3, students will "Build-a-Spine" with materials that they have brought from home. Students will creatively construct the entire human spinal column from the cervical vertebrae to the coccygeal. Options for materials include marshmallows, crackers, clay, paper cups, foam, foil, etc. Students will critique each groups projects ensuring that models reflect accurate size, have each vertebra labeled, and contain vertebral discs where appropriate.
- SECTION O: Environmental Conditions
 - Perform patient assessment and treatment for cold emergencies. Write a note on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.
 - Instruct students on using and analyzing a digital sling psychrometer. Students will analyze the heat index graph and identify signs and symptoms of heat illness. Students will create a heat illness injury policy for a high school setting and how to prevent heat illness.
- SECTION P: Medical Conditions
 - Perform patient assessment and treatment for diabetes. In a 500-word essay describe the effect inadequate insulin therapy has on ventilation. Explain

why the change in ventilation is beneficial.

Use correct grammar, punctuation, and grammar. Review and demonstrate the correct administration of oral glucose.

- Students will perform a patient assessment for a patient suffering from asthma. Students will demonstrate the proper use of an inhaler and how to assist a patient with administration. Students will write a summary on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.
- Perform patient assessment and treatment for seizures. Write a summary on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.
- Perform patient assessment and treatment for appendicitis. Write a note on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.
- Perform patient assessment and treatment for heart conditions. Write a note on the assessment and treatment to be placed in the patient's chart. Use correct grammar, punctuation, and grammar.
- SECTION Q: Taping Techniques
 - Each student will be given a roll of athletic tape and will learn to rip tape by ripping the entire roll into one inch pieces. Students will pinch the tape between the index finger and thumb, pulling towards them, ripping the tape. If the tape folds or does not rip, instruct students to lengthen the tape and try ripping again in a different section. For a fun get-to-know-you activity, have students create a self-representation model out of the ripped tape. Have students present their tape creations to the class.
 - Students will demonstrate and evaluate the various taping and wrapping techniques of the upper and lower extremities. In a lab report, students will discuss the importance of taping techniques in the prevention and treatment of

athletic injuries and describe the potential pitfalls of taping. Students will communicate their findings to their peers and utilize the labs rubric for assessment.

- Create a chart of taping and wrapping supplies. Choose one sport and the number of athletes that will be participating. Use a catalog or the Internet to find the prices for your supplies. Calculate the amount needed to provide the team with the necessary supplies. Utilize lab rubric for assessment.

KEY ASSIGNMENTS

Section A: Introduction into Sports Medicine

Students in this unit will learn about the early historical perspectives of athletic training. Drawing from the early times of the Roman Empire and its evolution to the twenty-first century. Students will also be able to identify the five performance domains of the athletic trainer and formulate an opinion on why these five are important within our industry and rank them in order of prominence.

Students will research and compile information about the history of athletic training and will be able to hypothesize the future of the athletic trainer and their profession. Students will justify their explanation in a 200 word paper and present/debate their results with the class.

Students will read the chapter and define the key terms. Students will work in groups to discuss and respond to thinking it through questions within the chapter.

Sample Question: A student of athletic training must develop a sound knowledge base in and demonstrate competent performance skills in five major domains: prevention of athletic injuries, evaluation, and immediate care of injuries; rehabilitation and reconditioning; health care administration; and professional development and responsibility. How can student athletic trainer's best prepare themselves to be competent professional athletic trainers and utilize each of these five domains?

There are many other medical professionals that are important in the field of athletic training that are concerned with the athlete's well-being. In this unit, students will research and contrast each of the roles and responsibilities of each member and survey how much education is required to enter into that profession and their annual salary. Students will create a spreadsheet that breaks the information into its basic parts and uncover the unique characteristics of each component.

Students will read the chapter and define key terms. Students will work in groups to discuss and respond to thinking it through questions and report their conclusions to the class.

Section B: Ethical and Legal Considerations

This unit will discuss the importance of ethics and code of conduct for athletic trainers. As an athletic trainer, you are responsible for any harm that you may cause another person and that you will be held responsible for harm that results from failure to resolve situations with a potential for injury. Students will learn legal terms such as risk management, negligence, standard of care, ethics,

tort, battery and malpractice. Students will discuss and debate what would happen if an athletic trainer fails to uphold ethical conduct and regulatory codes. This chapter will go over the legal responsibilities of athletic training and the elements of the Patient's Bill of Rights.

Students will read the chapter and define the key terms.

Students will identify and share out with the class local, district, state, and federal regulatory agencies, entities, laws and regulations related to the sports medicine field.

Using the internet, students will find the cost for liability insurance for a Certified Athletic Trainer and describe in 150 words what it covers and what it doesn't cover.

Students in small groups will form a safety committee and interview coaches and athletic directors to record issues that the group feels are essential to risk management. Students will then discuss each safety committee's plan of action to minimize risk to the team, athletes and/or school. Students will then create a PowerPoint presentation to present to the class.

Students will use emerging technology to investigate and research five scenarios utilizing actual legal cases in athletic training that evaluate assumption of risk, liability, negligence, and torts. Students will interact and participate in a class debate on these specific cases to hypothesize a new outcome that would have yielded different results. Students will then report their outcome to the class.

Section C: Communication

The sports medicine team works closely alongside with coaches, strength and conditioning instructors, and outside medical staff to provide an appropriate treatment and rehabilitation plan for every student athlete who is in need of our assistance. Effective communication between the athletic trainer, team physician, student athlete, coaching staff, parents and additional outside medical providers allows the athlete to be returned to activity as quickly and safely as possible. In this chapter, students will learn how to communicate effectively and learn strategies for dealing with and overcoming potential pitfalls within the sports medicine team.

Students will research and identify several different types of communication styles and discuss the benefits and pitfalls with each. Students will then present their findings to the class through a 300 word paper.

Students will be given scenarios of specific situations that come up in athletic training and will be asked to respond and role play through the scenario utilizing the four different types of communication styles.

Based on the definition of communication, write a 500-word essay showing a dialog between a trainer and a client by using effective verbal and nonverbal communication. Use correct grammar, punctuation, and spelling.

Section D: Pharmacology

In this section, students will be required to identify the different types of drugs that are used within the world of sports medicine. Students will examine the process of a drug's journey throughout the body from administration, absorption, distribution, metabolism, and excretion. Students will also discuss contradictions and adverse reactions to drugs and their long-term effects. This chapter will help the student understand both the performance-enhancing substances and the therapeutic medications used in the treatment of injuries, including their effects, indications, and contraindications.

Students will differentiate between the types of anti-inflammatory and analgesic medications. Using the Internet, students will prepare a display listing the steps that are necessary when preparing a new drug for marketing. Students must include the number and types of trials. Use correct grammar, punctuation, and spelling.

Using the internet, students will create a table that compares and contrasts the common types of over the counter medications used in sports medicine. Students will be required to list the drug type, drug facts, benefits, actions, contraindications, side effects, generic name and trade name. Use correct spelling.

Students will practice solving math equations that convert the amount of medication given in milligrams, kilogram and pounds.

Students will be asked to explain the importance of military time and give an example of why time is so important in athletic training. Students will write a 250-word essay reviewing two specific scenarios in which instructions are given to clients using a 12 – hour clock and how that may be confusing and could put clients at risk. Students will then explain how the use of a 24 – hour clock can prevent pitfalls for the client. Use correct grammar, punctuation, and spelling.

Section E: Nutrition

This chapter will teach students about the basic components of nutrition and weight control. Students will be able to identify the six classes of nutrients and how food is utilized and used for fuel and recovery for athletes. This chapter will also explore the use of ergogenic aids and how specific sports can lead to eating disorders.

Students will research several government nutrition sites on the Internet and compare their diet to a personalized plan based on age, gender, weight, and physical exercise. Students will discuss ways in which you can improve your diet in a 250-word essay. Use correct grammar, punctuation, and spelling.

Using the internet or library students will research and illustrate the major functions of insulin and glycogen in the body and how it affects the athlete. Use correct grammar, punctuation, and spelling.

Students will utilize the Internet and/or food labels to calculate the amount of calories they consumed each day for a seven day period and create a poster showing the types of food they ate, the amount of calories consumed each day, and the amount of calories coming from carbohydrates, proteins, and fats. Students will then compare and contrast their diet from that seven day period and write a 200 word essay on how they can improve their diet. Use correct grammar, punctuation, and grammar.

Identify and label the main parts of the digestive system on a lifelike model. Use correct spelling.

Label the parts of the large and small intestines on a diagram. Use correct spelling.

Create a chart with the functions of the digestive system: enzyme, source, and function. Use correct grammar, punctuation, and spelling.

Create a diagram that shows the digestion of food molecules. Use correct spelling.

Section F: Physical Fitness Assessment

The goal of performing a physical fitness assessment is to improve or maintain performance in terms of muscle endurance, flexibility, cardiorespiratory endurance, body composition and physical capabilities or limitations. Prior to having an athlete or client begin physical activity, their physical abilities must be evaluated to establish a baseline so their progress can be tracked. In this unit, students will learn about the importance of measuring an athlete's cardiorespiratory endurance through heart rate and resting heart rate, body composition, measuring muscle gain or loss, and how to record and track progress.

Students will identify and label the parts of the human heart on a lifelike model. Use correct spelling

Students will draw a heart, label the main parts of the heart and describe the journey of the blood through the circulatory system. Create a diagram of the circulatory system and present it to the class. Use correct grammar, punctuation, and spelling.

Students will identify and label the parts of the respiratory system on a lifelike model. Use correct spelling.

Research and conduct an interview of the coaches at your school and list the types of physical assessments required for athletes in each sport. Do you feel that these are evaluations are valid for each specific sport? Do you feel that they are too easy or too hard? In a 350 word report, compare and contrast the information found in your investigation and state your opinion on how you would improve and justify your recommendations. Use correct spelling.

Review and expand your personal plans for staying fit and healthy. (You cannot help clients if you are not in a fit condition yourself.) Prepare a 500-word essay that includes the changes you have to make to achieve these goals, a specific time-line and the specific steps you need to take.

In pairs, students will work together to fill out a pre-participation evaluations. Use correct grammar, punctuation, and grammar.

Section G: Physical Conditioning

Conditioning prepares the body for optimized performance and reduces the chances of athletes getting injured. A successful conditioning program must address muscular strength, and endurance, flexibility, cardiorespiratory fitness, and body composition. In this chapter, students will learn the proper techniques for getting the athlete prepared for his or her sport. Students will be able to differentiate between isometric, isotonic, and isokinetic exercises.

The Surgeon Generals January 2000 report Healthy People 2010 indicates that the most significant factors of healthy lifestyle can be achieved through personal habits. Write a 500-word report on some of these habits that describe how they can benefit the client. Use correct grammar, punctuation, and grammar.

Write an essay explaining why it is important to keep the evaluation of each client's physical and medical history in mind at all times during the conditioning workouts. Use correct grammar, punctuation, and spelling.

Each student will be given a folder which specific information on a client. Utilizing this information and the client's specific fitness goals, each student will create an exercise program that is designed specifically for their client.

Section H: Emergency Preparedness and Assessment

In order to provide the appropriate first aid to a patient, you must assess the extent of the person's injuries. Without this assessment, injuries that are not as obvious as others might go untreated. Students in this chapter will learn how to accurately measure specific vital signs and utilize the readings to provide prompt and rapid emergency care. In this chapter students will also learn how to establish and implement an emergency action plan for their school site.

Describe the importance of the primary survey and create a checklist of the steps necessary to evaluate the client's condition. Use correct spelling.

Identify the body planes on a human body diagram and give an example by describing a sports injury found during the secondary survey. Write a description of the injury. Use correct grammar, punctuation, and spelling.

Interview someone recovering from a sports related injury and have the person describe how the injury felt and record the in-depth patient history, and course of treatment. Write up the results of the interview. Use correct grammar, punctuation, and spelling.

Create an emergency action plan. Write the steps of the Emergency Action Plan as if you would have been there when the incident happened.

Section I: Infection Control

Many sports involve skin-to-skin contact, and certain injuries can create breaks in the skin, placing both the players and the athletic trainers at risk of contracting a variety of infections. This chapter will go over the infection cycle, medical and surgical asepsis, sterilization, bloodborne pathogens proper body substance isolation techniques, sharps and standard precautions when working with infectious agents.

Create a poster explaining the Safety First Procedures that health care professionals need to follow in the workplace. The topic can be either washing your hands or the use of gloves. Use correct grammar, punctuation, and spelling.

Write a 500-word essay showing the risk of infections and describing and comparing Hepatitis A, B and C. Use correct grammar, punctuation, and spelling.

Utilizing pictures of infections skin conditions, students will be able to identify the specific infection, recall signs and symptoms, and explain in detail the proper course of treatment and protocol for referral.

Section J: Vital Signs Assessment

Write a short 250-word script of what you would tell your client about procedures as you begin taking the blood pressure. Use correct grammar, punctuation, and grammar.

Write a 500-word essay describing how ventilation is regulated during exercise and explaining the effect of exercise training on the respiratory system. Use correct grammar, punctuation, and spelling.

Section K: Basic Life Support

Within this unit students will learn about the anatomy, functions, and systems of the heart. Students will also learn about the cardiac cycle and the relationship among the contraction of each chamber, the pressure of the chambers, the phases of the electrocardiogram and the sounds of the heart. In addition, students will learn about pressure waves, pulse and blood pressure. Students will be able to explain the concept of the pressure wave, or pulse and demonstrate detection of the pulse in a human node.

Students will label the components of the heart. They will also label the cardiovascular system and a site map of the circulatory system. Students will be able to describe the structure of the heart and locate anatomical features of the heart. Instructors will teach and certify students in American Heart Association CPR and AED. Students will write a 500 word paper on diseases of the heart and relate it towards children, athletes or the elderly.

Students will discuss with the class the effects of circulatory shock and the effects of exercise and food on the circulatory system. Students will label and identify the major veins and arteries in the body.

Students will identify the four observational skills and create a two minute video to present to the class.

Students will work in pairs and each group will receive an “injury” and go through the primary and secondary process. Students will then use directional terms while going through the practice.

Section L: Injuries to Tissues

Within this unit, students will be presented with information about how tissue responds to injury. This chapter presents the reaction of vascularized living tissue to sports trauma, including the inflammatory response and the healing process. It provides a foundation for therapeutically managing the sports injury.

Students will be required to name and explain at least four cellular components and correctly and accurately label each part of the cell.

Students will identify and label the different types of skin tissue injuries and explain in detail how the injury is caused, signs and symptoms and proper care. Students will demonstrate the protocol for wound care; how to control bleeding and how to properly dress a wound.

In small groups, Students will a be able to create a poster that illustrates a blueprint of the major events that take place in the acute and chronic phases of inflammation and identify and explain in detail the process of repair and regeneration of the damaged tissue.

Students will write a 500 word paper on the nervous system and how pain is powered electrochemically throughout the body. Students will analyze and describe the different types of pain categories/sources and how each type affects the athlete differently. Students will argue whether or not pain is based on fact or opinion and give their reasoning as to why or why not.

Students will identify and label the basic joints, muscles and bones along with the different types of movements in the body.

Students will work in small groups to demonstrate how to properly and affectively apply different types of splints to stabilize fractures on different areas on the body.

The upper and lower extremities are vulnerable to a variety of injuries depending on the sport being played. In this unit, students will be able to identify the major bones, muscles, veins and arteries involved in the upper and lower extremities. Students will also be required to recognize the cause, signs and care for common injuries, with respect to specific sports to which athletes are most susceptible. Students will then be required to create a treatment plan for an athlete's return to play and present it to the class.

Students will define key terms and label the bones, muscles and movements involved in the upper and lower extremities.

Students will identify all of the major articulations of the upper and lower extremity and research and discuss in a 500 word paper the effects of exercise on these articulations over time.

Students in small groups will work together to unpack the bones of a disarticulated skeleton. Students will divide the bones into two categories of upper and lower extremity.

With a partner, discuss and describe the HOPS assessment protocol. Students will be able to demonstrate with a partner how to apply general ROM and manual manipulations to the upper and lower extremity based on the specific body part that is injured.

Students will create a flow chart that identifies the cause, signs and care for each of the injuries involved in the upper and lower body.

Students will be given two specific injuries pertaining to the upper and lower body and create a 15 slide PowerPoint presented to the class that discusses the cause, signs/symptoms and immediate care of the injury.

Section N: Injuries to the Head and Spine

Use a diagram of a brain, right side, superior and inferior view and label them. Use correct spelling

Use a diagram of an eye and label all parts. Use correct spelling.

Demonstrate treatment for eye, ear, and nose injuries. List the treatment for each injury. Use correct grammar, punctuation, and grammar.

Section O: Environmental Conditions

Students will learn about the relationship between structure and function of the human body. The intricate parts of the human body are maintained by a complex system of checks and balances, called homeostasis. In this unit students will explore the body's ability to maintain homeostasis. Students will be able to define and explain what homeostasis is and how it functions in the body.

Each function of the body is responsible for detecting stimuli, responding to stimuli, and performing specific actions. Through the close reading of the related text in this chapter, accompanying lecture notes, journal entries, written exercises, class discussion, and lab activities the student will achieve the following:

1. Compare and contrast the meaning and sciences of anatomy and physiology.
2. Identify and explain the structure and functional organization of the human body at the chemical level, cellular level, tissue level, organ level, organ system level and organism level.
3. Identify the characteristics of life organization, metabolism, responsiveness, growth, development and reproduction.
4. Define homeostasis and explain its significance to the body as well as how homeostatic imbalance such as hot and cold elements may lead to complications in sports.

Students will write a 250 word paper that compares and contrasts various types of heat and cold related illnesses among athletes and discuss the effects of convection, radiation, evaporation, and wind-chill in relation to heat exhaustion, heat stroke, hypothermia, frostbite and sickle cell anemia.

In small groups, students will research various types of sports drinks and then compare and contrast at least four different varieties. Students will calculate carbohydrate concentration percentages of the drinks to determine which is best in the prevention of dehydration. Students will present their findings to the class.

Using a psychrometer, students will calculate relative humidity over a five day span of time and be able to read a humidity chart. Students will then report their findings and whether or not it is safe or unsafe conditions for athletes to participate and what precautionary protocols they would enforce.

In groups, students will create a PowerPoint on a specific medical condition such a diabetes mellitus, Hypoglycemia, insulin shock, asthma, epilepsy, appendicitis and genetic heart conditions. Information included in their presentation will be definition, signs and symptoms, immediate treatment, follow-up treatment and prevention. Students will then present their findings to the class.

Section Q: Taping and Wrapping

Bandaging and taping are major skills used in the protection and management of the injured athlete. Each of these skill areas requires a great deal of practice before a high level of proficiency can be attained. At the end of this unit, students will be required to:

Students will identify the different types of tape that is used in joint stabilization and indicate when and why we use them for specific situations.

Demonstrate proper and effective site preparation for taping

Instructor will bring different types of tape to class. Lead a discussion on the different types of uses for each type of tape and the qualities to look for in purchasing tape. Students will practice tearing tape to increase speed and effectiveness. They will each then create "Tape Art" with the pieces that they tear.

Students will pair up and practice basic taping skills: Ankle taping, Turf Toe, Shin Splints, Arch, Knee, Elbow, Thumb and Fingers. Students will then discuss the advantages and disadvantages of using tape as a method of support.

Demonstrate the proper application of rolled elastic bandages to the thigh, groin, back, elbow, shoulder, hand, and thumb.

Section R: THERAPEUTIC MODALITIES AND PHYSICAL REHABILITATIONS

In this unit students will be introduced to the use and application of therapeutic modalities through the use of cryotherapy, thermotherapy, diathermy, ultrasound, electrotherapy, lasers, massage, traction and intermittent compression. At the completion of this unit students will be able to discuss the legal ramifications of treating the athlete with therapeutic modalities and be able to describe the relationship of most therapeutic modalities relative to electromagnetic energy. Students will describe in detail the theoretical uses of the various types of modalities and their functions.

Students will discuss and develop a 200 word write up on the purpose of therapeutic modalities and discuss your opinion with the class.

Discuss and create an argument for the legal implications associated with the use of therapeutic modalities in the high school setting. Students will share their arguments with the class.

Students will create a flow chart and list the different types of modalities discussed within the text and explain how each is used.

Students will create a poster and discuss safety considerations involved with the use of modalities and how to prevent accidents from occurring.

Students will demonstrate how to properly set up a patient to electrical stimulation utilizing standard safety protocols.

Each student will take a modality and create a 15 slide PowerPoint presentation for the class discussing legal ramifications, indicators for use of that modality, parameters for use, application, and special considerations.

Textbooks

Title	Author	Publisher	Edition	Website	Primary
EXTBOOK 28554 Title: Sports Medicine Essentials	Author(s): Clover, Jim C.	Publisher: Thompson Delmar Learning	Edition: 2nd	[empty]	Yes
EXTBOOK 28556 Title: BLS for Healthcare Providers	Author(s): Hazinski, Mary Fran (editor)	Publisher: American Heart Association	Edition: 2011	[empty]	Yes
EXTBOOK 28557 Title: Essentials of Anatomy and Physiology	Author(s): Seeley, Rod R., Trent D. Stephens, and Phillip Tate	Publisher: McGraw-Hill Companies, Inc.	Edition: 6th	[empty]	Yes
itle: Foundations of Athletic Training	Marcia K thoAnderson, Gail P. Parr, and Susan J. Hall	Publisher: Lippincott Williams & Wilkins	Edition: 5th Edition	[empty]	Yes
EXTBOOK 28555 Medical Terminology for Health Professionals	Author(s): Ehrlich, Ann and L. Carol Schroeder	Publisher: Thomson Delmar Learning	Edition: 4th	[empty]	No
EXTBOOK 28558 Title: Athletic Training and Sports Medicine	Author(s): Starkey, Chad and Glen Johnson	Publisher: Jones and Bartlett Publishers	Edition: 4th	[empty]	No
EXTBOOK 28559 Title: The Physical Therapy Aide	Author(s): Weiss, Roberta	Publisher: Delmar Publisher, Inc	Edition: 3rd	[empty]	No

Supplemental Materials

Title	Content
Supplemental Materials	None



New Course Signature/Approval Page

- I. Suggested Course Title: CTE Sports Medicine Lab
- II. Department(s): CTE / Elective
- III. School: SJHS
- IV. School Committee Members:
- | | |
|----------------------------------|-------------------------------|
| a. Name: <u>Erika Gardner</u> | Signature: <u>[Signature]</u> |
| b. Name: <u>Justin Carnevali</u> | Signature: <u>[Signature]</u> |
| c. Name: <u>J. Bourbinay</u> | Signature: <u>[Signature]</u> |
| d. Name: <u>S. Sward</u> | Signature: <u>[Signature]</u> |
| e. Name: _____ | Signature: _____ |
- V. Committee Meeting Date(s): 11/6 11/22
- VI. Department Chair Signature:
- | | | |
|----------------------------|-------------------------------|-----------------------|
| a. Name: <u>R Castillo</u> | Signature: <u>[Signature]</u> | Date: <u>12/10/19</u> |
| b. Name: _____ | Signature: _____ | Date: _____ |
- VII. Principal Signature:
- | | | |
|------------------------------|-------------------------------|-----------------------|
| a. Name: <u>Gowdrey Hall</u> | Signature: <u>[Signature]</u> | Date: <u>12/10/19</u> |
|------------------------------|-------------------------------|-----------------------|
- VIII. Course Proposal Reviewed by Educational Services:
- | | | |
|--|-------------------------------|-----------------------|
| a. Director, Educational Services: <u>Janet Covacevich</u> | Signature: <u>[Signature]</u> | Date: <u>1-30-20</u> |
| b. Assistant Superintendent of Educational Services: _____ | Signature: <u>[Signature]</u> | Date: <u>2/2/2020</u> |
- IX. Course Proposal Approved by the Board of Trustees:
- | | | |
|---|------------------|-------------|
| a. SJUSD Board of Trustees President: _____ | Signature: _____ | Date: _____ |
|---|------------------|-------------|

