11/20/20
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El Monte Union High School District

Course Outline

High School South El Monte

Title: Sports Therapy

Transitional*_____(Eng. Dept. Only)

Sheltered (SDAIE)*____Bilingual*___

AP**_____Honors**_____

Department: CTE

Grade Level (s): 9-12

Semester_____Year X

Year of State Framework Adoption_____

This course meets graduation requirements:

( ) English
( ) Fine Arts
( ) Foreign Language
( ) Health & Safety
( ) Math
( ) Physical Education
( ) Science
( ) Social Science
(X) Elective

Department/Cluster Approval	Date
_____	_____
_____	_____
_____	_____
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_____	_____
_____	_____
_____	_____

1. **Prerequisite(s): None.**

Highly recommended that the student complete Health Careers first.

2. Short description of course which may also be used in the registration manual:

The class is designed to introduce students to terminology, theories, principals and skills involved with the fast paced growth of sports medicine. The emphasis of this course will be on anatomy and physiology of the human body. The goal is to implement the lessons learned in a classroom setting and apply them out on the sports field or arena (field experience). Attention will be focused on use of protective equipment, prophylactic tapping, wrapping and bracing as well as acute injury management such as emergency medical care, safety precautions and administrate basic health care to the athlete professional.

3. Describe how this course integrates the schools ESLRs (Expected School-wide Learning Results):

This course integrates the ESLRs by combining elements of hands on career technical education in various areas while utilizing the skills of reading, writing, speaking, listening and mathematics.

1.) ***Life Long Learners – This ESLER is demonstrated by:***

- Students learn how a healthy lifestyle can prevent or avoid future sports and exercise injuries.
- Students learn how nutrition can help to prolong a healthy lifestyle for their work and sporting activities.
- Students developing an understanding and appreciation for the role sports plays in our society and how that role is influenced by cultural traditions, social values, and psychosocial experiences.

2.) ***Applying Knowledge skills to everyday life experiences***

- Students will be able to apply techniques like taping, banding and sports massage to their sports, recreational or personal injuries to rehabilitate themselves in the future.
- Students will be able to apply nutrition information to diet and exercise programs for healthy fitness to avoid diseases and cardiovascular problems in the future. This enriches both future students as individuals and society to have physically fit and healthy individuals.
- Students will be able to use knowledge acquired from this high school level course to be ethically responsible, culturally proficient citizens, well informed and involved in civic affairs locally, nationally and globally because sports unites people.

3) ***Critical Thinking Skills***

- Students will use critical thinking skills during the Case Studies physically performed by the students (Hands-On Problem-Based Critical Thinking Skills) to resolve sports related medical issues/problems.
- Critical thinking skills are assessed as part of the General Education Program through essays, exams, and projects where students must apply their knowledge to diagnose and select the most effective treatment plan (modality) for specific athletic injuries.
- Students will be able to support claims of sports and medicine topics thru relevant and critical evidence rather than based on biases expressed in effective written and spoken communication.

4. Teaching techniques for English Language Learners

The methodologies and techniques used in this course are hands-on labs, demonstrations, field trips, use of sports medicine equipment and supplies as well as paragraph writing (essays).

Oral language development will occur through class discussion and presentations. Pair/share, chunk and chew and reciprocal teaching will be used throughout the course to assist students in understanding the information. Variety of hands-on activities will allow the student to demonstrate their learning and achievement of the course content. Peer support will be utilized to assist in instruction and information when needed. Students will be paired with another student who has a common language if possible. The use of labs, demonstrations, field trips, and sports medicine equipment will enable the English Leaners to have visual aids to assist in instruction. Basic exercises from physical education may be includes in the course.

5. Describe the interdepartmental articulation process for this course:

Writing skills will be emphasized throughout the course. Students will need an understanding of basic computational skills for needed calculations. Word processing skills will be used for reports and presentations. Students will be expected to use powerpoint for presentations. Science articulation will be placed heavy on this course. A basic understanding of the anatomy and physiology of the course is needed. As students progress through the course developing and maintaining a healthy individual will become apparent as the student is expected to provide various exercises to assist in the recuperation and healing process of an injury or for injury prevention.

6. Describe how this course will integrate academic and vocational concepts, possibly through connecting activities. Describe how this course will address work-based learning/school to career concepts:

Students writing skills will be enhanced through a variety of assignments. Critical thinking skills will be used to evaluate and apply the information learned to personal living and the work environment. Students will utilize the elements of reasoning in a variety of learning context in the classroom. The correlation between academic and vocational concepts and skills will be related to every day living. Students will engage in individual and cooperative group work to develop responsible attitudes. Each student will be able to demonstrate an understanding of the duties and responsibilities of a Certified Athletic Trainer (CAT), human anatomy and physiology form and function, emergency preparedness, sport injuries and modalities, acute injury management.

7. Materials of Instruction (Note: Materials of instruction for English Language Learners are required and should be listed below.)

A. Textbook(s) and Core Reading(s):

Sports Medicine Essentials: Core Concepts in Athletic Training & Fitness Instruction, 2nd Ed.
ISBN: 1401861857
Clover, Jim. Cengage Learning ©2008.
Includes Multimedia Technology (DVD or Electronic) and Workbooks

B. Tools, Equipment, Technology, Manipulatives, Audio-Visual:

Videos, Power Point, and slide presentations, anatomical models and charts, Guest Speakers, Internet, access and utilization to all computer labs, chromebook carts, library, lcd projectors.

1. American Red Cross Community First Aid and CPR Manuals
2. ARC Community CPR Instructor Manual
3. ARC Community CPR Video
4. Full Human Size Skeleton
5. Human Anatomical Charts; Muscles, Bones, Nervous and Vascular Systems
6. 1-1/2" Zonad or Adhesive Tape
7. 72 yds. roll Ankle Wrap Material: Cramer
8. Ankle Wrap Rollers: Cramer
9. Pre-Wrap/Underwrap for Taping
10. 4x4 Non Sterile Gauze
11. 6" Elastic Wraps
12. 6" Double Length Elastic Wraps
13. Leg Air Splints
14. Ankle Air Splints
15. Arm Air Splints
16. Vacuum Splint Immobilizers
17. Non Sterile Kling Bandage 2"
18. Non Sterile Kling Bandage 4"
19. Cardboard Leg Splints
20. Cardboard Arm Splints
21. Cardboard Wrist Splints
22. Cervical Collars, Rigid, Various Sizes
23. Push button Penlights
24. Bandage Scissors

25. Stethoscopes
26. Blood Pressure cuffs
27. Adult CPR Manikin
28. Infant Manikin
29. CPR Face Mask with Valves
30. Disposable Face Shields for CPR
31. Anatomical Model, Knee
32. Anatomical Model, Ankle/Foot
33. Anatomical Model, Shoulder
34. Anatomical Model, Elbow
35. Anatomical Model, Spine/Pelvis
36. Hydrocullator Heater: Medium
37. Hydrocullator Packs: Small
38. Hydrocullator Packs: Cervical
39. Reusable Flexible Card Packs
40. Alcohol Wipes
41. Training Angel: Face Mask/Helmet Removal

8.) OBJECTIVES OF COURSE		
Unit Lessons	**Days**	**CTE California Standards**
Unit 1 Introduction to Sports Medicine	**(2 Days)**	**(HSMT 1.0, 4.5, 9.4, 9.5, 9.7)**
1.1 History of Sports Medicine		**(HSMT 1.0, 4.5, 9.4, 9.5 & 9.7)**
1.2 Athletic Training from its Inception to Current Its purpose in society		**(H.S. 3.0, 3.2, 3.5, 3.6, 3.9)**
Levels of athletic training		**(HSMT 3.1, 3.2, 3.3,3.4, 3.5, 3.6, 3.9,)**
Job opportunities within the field		**(HSMT 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.9)**
Educational requirements to become an A.T.C. in NATA		**(HSMT 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.9)**
Functions of and benefits of NATA		**(HSMT 1.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.9)**
Observe an athletic trainers function		
1.3 Report on Physical Therapy from Inception to Current		
P.T. and its role in society		**(HSMT 3.6, 3.9, 11.0, 11.1, 11.2, 11.3, 11.4)**
requirements to become certified/ registered Physical Therapist		**(HSMT 1.0, 3.0, 3.1, 3.2, 3.4, 3.5, 3.6, 3.7, 3.9)**
1.4 Disciplines Involved in Sports Medicine		
Scope of practice for each career path		**(HSMT 1.0, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 3.3, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 9.0, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 11.0, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6)**
Ethical obligation of each career path and consequences of violation		**(HSMT 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7)**
Liability for health care and fitness professionals		**(HSMT 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8,7.0, 7.1, 7.2, 7.3, 7.4, 7.6, 7.7, 7.8, 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7)**
Patient confidentiality and consequences of		**(HSMT 2.5, 2.6, 7.0, 7.1, 8.0, 8.1, 8.2, 8.3, 8.4,**

violation		**8.5, 8.6, 8.7)**
Unit 2 EMERGENCY PROCEDURES **2.1 American Heart Association First Aid and CPR** **2.2 Blood borne pathogens (1Day)** **HIV/AIDS** **Hepatitis** **Universal precautions**	**(6 Days)**	**(HSMT1.0, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 4.4, 4.5, 5.0, 5.1, 5.2,5.3, 5.4, 5.5, 5.6, 6.1, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 8.0, 8.1, 8.2, 8.3, 8.5, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 11.0, 11.1, 11.2)**
Unit 3 THE HUMAN BODY **3.1 Anatomic Terms Including Planes, Directional Terms and Cavities** **3.2 Body Organization and Systems** **3.3 Homeostasis and Vital Signs**	**(1 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6)**
Unit 4 CELL STRUCTURE AND FUNCTION **4.1 Definition of a Cell** **4.2 Anatomy of a Typical Cell** **Structure and function of organelles**	**(1 Day)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6)**
Unit 5 TISSUES **5.1 Function, Characteristics and Morphology of:** **Epithelial tissue** **Connective tissue** **Muscular tissue** **Nervous tissue** **5.2 Tissue Response to Injury** **Response to trauma** **The injury cycle** **Healing and regeneration** **3. Case study**	**(2 Days)**	**(HSMT1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.2, 10.3, 10.4, 10.5)**
Unit 6 INTEGUMENTARY SYSTEM **6.l Anatomy of the Integumentary System** **6.2 Functions of the Integumentary System** **6.3 Disorders of the Integumentary System (cause, recognition and treatment/management)** **Cancer** **Dermatophytes** **Psoriasis** **Human papilloma virus**	**(2 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5)**

Type I herpes simplex **Tinea pedis**		
Unit 7 SKELETAL SYSTEM **7.1 Functions of the Skeletal System** **7.2 Bone Growth and Formation** **7.3 Histology of Bone** **7.4 Anatomy of a Typical Long Bone** **7.5 Classification of Bone Based on Shape** **7.6 Divisions of the Skeleton** **Identification of bones in the axial and appendicular skeleton** **7.7 Joints** **Classification and mechanics of joints** **7.8 Injuries to the skeletal system** **Fractures** **How bones heal** **Sprains** **Mechanism and classification of sprains and ligament injuries** **Arthritis** **Skeletal and joint injuries in sport** **Foot** **Ankle** **Knee** **Hip** **Hand** **Elbow/forearm** **Shoulder**	**(8 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5)**
Unit 8 THE MUSCULAR SYSTEM **8.1 Function of Muscular System** **8.2 Types and Anatomy of Muscle Tissue** **Smooth/visceral** **Striated/skeletal** **Cardiac** **8.3 Physiology of Muscular Contraction** **Sliding filament theory** **Muscle twitch** **Muscle tone** **8.4 Muscle Identification** **Muscle name** **Function** **Location** **Origin/insertion** **8.5 Muscle Injuries in Sport** **Foot, ankle and lower leg** **Knee/thigh**	**(10 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5)**

Hip/groin **Wrist/hand** **Elbow/forearm** **Shoulder** **Back**		
Unit 9 NERVOUS SYSTEM AND SPINAL CORD **9.1 Function of the Nervous System** **9.2 Organization of Nervous System** **Central/peripheral nervous system** **Afferent/efferent nerves** **Somatic/autonomic nervous system** **Sympathetic/parasympathetic nervous system** **9.3The Nerve and Nerve Impulses** **9.4 Spinal Cord and Spinal Nerves** **Function and anatomy** **Injuries to:** **Spinal cord** **Brachial plexis** **10.0 NERVOUS SYSTEM AND THE BRAIN (4 Days**	**(5 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5)**
Unit 10 NERVOUS SYSTEM AND THE BRAIN **10.1 Anatomy and Function of the Brain** **10.2 Cranial Nerves** **10.3 Injuries to the Brain** **Concussion** **Second impact syndrome** **Post-concussion syndrome**	**(4 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 6.0, 7.7, 7.8, 10.0, 10.2, 10.3, 10.4, 10.5)**
Unit 11 THE CARDIOVASCULAR SYSTEM **11.1 Anatomy of the Heart and Circulatory System** **11.2 functions of the Heart and Circulatory System** **Blood pressure** **Heart rate** **11.3 Describe Cardiovascular Exercise and its Conditioning Parameters**	**(4 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 7.7, 7.8, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 11.0, 11.1, 11.2, 11.3, 11.4, 11.5)**
Unit 12 RESPIRATORY SYSTEM **12.1 Purpose OF the Respiratory System** **12.2 Anatomy and Function of the Upper Respiratory System** **12.3 Anatomy and Function of the Lungs**	**(3 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6,10.0, 10.1, 10.2, 10.3, 10.4, 10.5)**

12.4 Process of Ventilation **12.5 Process of Respiration (external, internal and cellular)** **12.6 Diseases/Abnormal Conditions** **12.7 Recognition and Treatment/Management of:** **Pneumothorax** **Hemothorax** **Asthma** **Pneumonia**		
Unit 13 LYMPHATIC SYSTEM **13.1 Function of the System and the Structure and Functions of the Lymphatic Vessels** **13.2 Immune Response** **13.3 Organs of the Lymphatic System** **13.4 Recognition and Management of Injury to the Spleen**	**(1 Day)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5)**
Unit 14 NUTRITION AND THE DIGESTIVE SYSTEM **14.1 Purpose of the Digestive System** **14.2 Anatomy and Function of the Digestive System** **14.3 Recognition and Management of Abdominal Injuries in Sports** **14.4 Essential Nutrients** **Function** **RDA for essential nutrients during various stages in life** **Where to obtain essential nutrients**	**(5 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1,5.2, 5.3, 5.4, 5.6, 7.0, 7.3, 7.4,7.8, 10.0, 10.1, 10.3, 10.4)**
Unit 15 INJURY IDENTIFICATION **15.1 Proper Injury Identification, Evaluation, and Information Gathering Process.** **15.2 Characteristics of Sprains and Strains to Various Joints of the Body, the recognition of the Different Degrees, and Care for Each** **15.3 Proper Care of Blisters and Open Wounds** **15.4 Differences in Theory and Techniques in the Workplace** **15.5 Characteristics of Specific Chronic Conditions, Care and Preventative Techniques Used to Limit Recurrence**	**(6 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 6.0, 6.1, 6.3, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5)**

15.6 Write Report on Physical Conditioning, De-conditioning, and How That Information Relates to Specific Population Groups		
Unit 16 KINESIOLOGY **16.1 Basic Kinesiology as it Pertains to Athletic Performance and Injury Rehabilitation** **16.2 Write Report on Basic Biomechanic Principles as they relate to Athletic Performance and Injury Rehabilitation**	**(3 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2,**
Unit 17 ATHLETIC TRAINING ROOM MANAGEMENT **17.1 The Pre-participation Screening Exam and its Importance in Athletic Participation** **Schedule, set up and coordinate a pre-participation screening** **17.2 Demonstrate Proper Equipment Maintenance, Cleaning, and Other Procedures Used in Athletic Training Rooms**	**(1 Day)**	**(HSMT 1.0, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.0, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 11.0, 11.1, 11.2, 11.3, 11.3, 11.4, 11.5)**
Unit 18 EQUIPMENT FITTING **18.1 Describe the Function, Selection and Use of Helmets** **Fit forearm helmets on different individuals** **18.2 Describe Function, Selection and Use of Different Types of Shoulder Pads** **Fit specific shoulder pads to individuals** **18.3 Describe the Use of Special Pads and Braces, Their Functions, and Rules Governing Their Use in Athletic Competition**	**(1 Day)**	**(HSMT 1.0, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.0, 7.3, 7.4, 7.5, 10.0, 10.4, 10.5)**
Unit 19 TAPING AND WRAPPING **19.1 Various Types of athletic Tape and Bandages to Provide Support and Proper Care for Specific Injury** **19.2 Apply Athletic Tape or Bandages** **To ankles of athletes involved in precise and competitive settings** **For specific knee injuries** **For specific shoulder injuries** **For specific elbow, wrist, hand, and finger injuries**	**(9 Days)**	**(HSMT 1.0, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.0, 7.3, 7.4, 7.5, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 11.0, 11.1, 11.2, 11.3, 11.4)**
Unit 20 MANUAL TREATMENTS	**(3 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 11.0, 11.1, 11.2, 11.3, 11.4)**

20.1 Describe the Roles and Responsibilities of P.T. Aides and Manual Treatments Utilized in the Clinical Setting **20.2 Describe Cryotherapy, its Indications, contraindications, and Patient Responses to it** **20.3 Describe Massage and its Use in the Clinic** **20.4 Discuss Massage, its Indications, Contraindications, and Patient Responses to it**		
Unit 21 ELECTRICAL MODALITIES **21.1 Describe the Roles and responsibilities of a Physical Therapy Aide in Regard to Electrical Modalities Used in the Clinical Setting** **21.2 Describe Electrical Modalities and the Safety Procedures Specific the Each** **21.3 Report on the use of Moist Heat and its Indications, Contra- indications, and Patient Responses to it**. **21.4 Report on the use of Ultrasound and its Indications, Contra- indications, and Patient Responses to it**	**(3 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 11.0, 11.1, 11.2, 11.3, 11.4)**
22.0 REHABILILTATIVE EXERCISES **22.1 Discuss the Use of Manual resistance Exercises, Their Proper Application, Progression, and Indication for Use** **22.2 In Teams, Demonstrate Rehabilitative Exercises and Their Use in the Clinical Setting and Administer Manual Exercise Techniques** **22.3 Discuss the Use of Mechanical Resistance Exercises and Their Use in Patient Care in the Clinical Setting**	**(2 Days)**	**(HSMT 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 11.0, 11.1, 11.2, 11.3, 11.4)**
23.0 AEROBIC EXERCISE	**(2 Days)**	**(HSMT. 1.0, 2.0, 2.1, 2.2, 2.7, 2.8, 5.0, 5.1, 5.2, 5.3, 5.4, 5.6)**

23.1 Create Personal evaluation of Physical Status, Including: Fitness Level, Limitations, THR, and Plan Development (**23.2 Prepare Facility to Include the Following: Spring Floor, Excellent Ventilations, Mirrored Wall** **23.3 Establish Individual Pacing and the Determining Factors for Pace**		
24.0 PRESENTATION OF CASE STUDIES ASSIGNED	**(2 Days)**	**(HSMT 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5)**

Abbreviations Meanings

HSMT --- Health Science and Medical Technology Knowledge and Performance Standards

Health Science and Medical Technology and Performance Standards	
1.0 Academics *Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the Health Science and Medical Technology academic alignment matrix for identification of standards.*	
2.0 Communications Acquire and accurately use Health Science and Medical Technology sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats. (Direct alignment with LS 9-10, 11-12.6)	
2.1	Recognize the elements of communication using a sender–receiver model.
2.2	Identify barriers to accurate and appropriate communication.
2.3	Interpret verbal and nonverbal communications and respond appropriately.
2.4	Demonstrate elements of written and electronic communication such as accurate spelling, grammar, and format.
2.5	Communicate information and ideas effectively to multiple audiences using a

	variety of media and formats.
2.6	Advocate and practice safe, legal, and responsible use of digital media information and communications technologies.
2.7	Recognize major word parts of medical terminology including roots, prefixes and suffixes.
2.8	Understand and use correct medical terminology for common pathologies.
3.0 Career Planning and Management *Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans. (Direct alignment with SLS 11-12.2)*	
3.1	Identify personal interests, aptitudes, information, and skills necessary for informed career decision making.
3.2	Evaluate personal character traits such as trust, respect, and responsibility and understand the impact they can have on career success.
3.3	Explore how information and communication technologies are used in career planning and decision making.
3.4	Research the scope of career opportunities available and the requirements for education, training, certification, and licensure.
3.5	Integrate changing employment trends, societal needs, and economic conditions into career planning.
3.6	Recognize the role and function of professional organizations, industry associations, and organized labor in a productive society.
3.7	Recognize the importance of small business in the California and global economies.
3.8	Understand how digital media are used by potential employers and postsecondary agencies to evaluate candidates.
3.9	Develop a career plan that reflects career interests, pathways, and postsecondary options.
4.0 Technology *Use existing and emerging technology to investigate, research, and produce products and services, including new information, as required in the Health Science and Medical Technology sector workplace environment. (Direct alignment with WS 11-12.6)*	
4.1	Use electronic reference materials to gather information and produce products and services.
4.2	Employ Web-based communications responsibly and effectively to explore complex systems and issues.
4.3	Use information and communication technologies to synthesize, summarize, compare, and contrast information from multiple sources.

4.4	Discern the quality and value of information collected using digital technologies, and recognize bias and intent of the associated sources.
4.5	Research past, present, and projected technological advances as they impact a particular pathway.
4.6	Assess the value of various information and communication technologies to interact with constituent populations as part of a search of the current literature or in relation to the information task.
5.0 Problem Solving and Critical Thinking *Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Health Science and Medical Technology sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques. (Direct alignment with WS 11-12.7)*	
5.1	Identify and ask significant questions that clarify various points of view to solve problems.
5.2	Solve predictable and unpredictable work-related problems using various types of reasoning (inductive, deductive) as appropriate.
5.3	Use systems thinking to analyze how various components interact with each other to produce outcomes in a complex work environment.
5.4	Interpret information and draw conclusions, based on the best analysis, to make informed decisions.
5.5	Know how to apply mathematical computations related to health care procedures (metric and household, conversions and measurements).
5.6	Read, interpret, and extract information from documents.
6.0 Health and Safety *Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Health Science and Medical Technology sector workplace environment. (Direct alignment with RSTS 9-10, 11-12.4)*	
6.1	Locate, and adhere to, Material Safety Data Sheet (MSDS) instructions.
6.2	Interpret policies, procedures, and regulations for the workplace environment, including employer and employee responsibilities.
6.3	Use health and safety practices for storing, cleaning, and maintaining tools, equipment, and supplies.
6.4	Practice personal safety when lifting, bending, or moving equipment and supplies.
6.5	Demonstrate how to prevent and respond to work-related accidents or injuries; this includes demonstrating an understanding of ergonomics.
6.6	Maintain a safe and healthful working environment.
6.7	Identify and follow ecological practices applicable to the health care setting (i.e., recycling, energy efficiency, environmentally preferable chemical use, waste disposal, and water conservation).

6.8	Be informed of laws/acts pertaining to the Occupational Safety and Health Administration (OSHA).
7.0 Responsibility and Flexibility *Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the Health Science and Medical Technology sector workplace environment and community settings. (Direct alignment with SLS 9-10, 11-12.1)*	
7.1	Recognize how financial management impacts the economy, workforce, and community.
7.2	Explain the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
7.3	Understand the need to adapt to changing and varied roles and responsibilities.
7.4	Practice time management and efficiency to fulfill responsibilities.
7.5	Apply high-quality techniques to product or presentation design and development.
7.6	Demonstrate knowledge and practice of responsible financial management.
7.7	Demonstrate the qualities and behaviors that constitute a positive and professional work demeanor, including appropriate attire for the profession.
7.8	Explore issues of global significance and document the impact on the Health Science and Medical Technology sector.
8.0 Ethics and Legal Responsibilities *Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms. (Direct alignment with SLS 11-12.1d)*	
8.1	Access, analyze, and implement quality assurance standards of practice.
8.2	Identify local, district, state, and federal regulatory agencies, entities, laws, and regulations related to the Health Science and Medical Technology industry sector.
8.3	Demonstrate ethical and legal practices consistent with Health Science and Medical Technology sector workplace standards.
8.4	Explain the importance of personal integrity, confidentiality, and ethical behavior in the workplace.
8.5	Analyze organizational culture and practices within the workplace environment.
8.6	Adhere to copyright and intellectual property laws and regulations, and use and appropriately cite proprietary information.
8.7	Conform to rules and regulations regarding sharing of confidential information, as determined by Health Science and Medical Technology sector laws and practices.
9.0 Leadership and Teamwork	

Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution as practiced in the Cal-HOSA career technical student organization. (Direct alignment with SLS 11-12.lb)	
9.1	Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders.
9.2	Identify the characteristics of successful teams, including leadership, cooperation, collaboration, and effective decision-making skills as applied in groups, teams, and career technical student organization activities.
9.3	Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace setting.
9.4	Explain how professional associations and organizations and associated leadership development and competitive career development activities enhance academic preparation, promote career choices, and contribute to employment opportunities
9.5	Understand that the modern world is an international community and requires an expanded global view
9.6	Respect individual and cultural differences and recognize the importance of diversity in the workplace
9.7	Participate in interactive teamwork to solve real Health Science and Medical Technology sector issues and problems
10.0 Technical knowledge and Skills *Apply essential technical knowledge and skills common to all pathways in the Health Science and Medical Technology sector, following procedures when carrying out experiments or performing technical tasks. (Direct alignment with WS 11-12.6)*	
10.1	Interpret and explain terminology and practices specific to Health Science and Medical Technology sector
10.2	Comply with the rules, regulations, and expectations of all aspects of the Health Science and Medical Technology sector.
10.3	Construct projects and products specific to Health Science and Medical Technology Sector requirements and expectations.
10.4	Collaborate with industry experts for specific technical knowledge and skills
10.5	Complete certification in emergency care as appropriate (cardiopulmonary resuscitation [CPR], automated external defibrillator [AED], first aid).
11.0 Demonstration and Application *Demonstrate and apply the knowledge and skills contained in the Health Science and Medical Technology anchor standards, pathway standards, and performance indicators in classroom, laboratory, and workplace settings and through the Cal-HOSA career technical student organization.*	
11.1	Utilize work-based/workplace learning experiences to demonstrate and expand upon knowledge and skills gained during classroom instruction and

	laboratory practices specific to the Health Science and Medical Technology sector program of study.
11.2	Demonstrate proficiency in a career technical pathway that leads to certification, Licensure, and/or continued learning at the postsecondary level.
11.3	Demonstrate entrepreneurship skills and knowledge of self-employment options and innovative ventures.
11.4	Employ entrepreneurial practices and behaviors appropriate to Health Science and Medical Technology sector opportunities.
11.5	Create a portfolio, or similar collection of work, that offers evidence through assessment and evaluation of skills and knowledge competency as contained in the anchor standards, pathway standards, and performance indicators.

- Indicate references to state framework(s)/standards (If state standard is not applicable then national standard should be used)

The Career Technical Education (CTE) Model Curriculum Standards used for this course are:

- Student performance standards

For all units the student grade will be based on points earned for work accomplished. The grade will be assigned based on the following standard:

A = 90 – 100% B = 80 –89% C = 70 –79% D = 60– 69% F = Below 59%

For case studies, certain projects and assessments, the performance standard used by based on the industry standard.

- **Evaluation/assessment/rubrics**

Through a balanced approach, assessment is an ongoing activity. Students demonstrate their knowledge throughout the course by completing activities, projects, and problems using a variety of assessment tools, such as performance rubrics and reflective questioning to deepen and expand their knowledge and skills. During the course, students will be presented with various case studies in which the student will be required to determine the injury, procedures to assist in the healing process, and

- Include minimal attainment for student to pass course

The final grade will be assigned based on the following scale:

A: 90-100% B: 80%-89% C: 70%-79% D: 60%-69% F: 59% or lower

Grades will be calculated by the number of points earned on the various assignments, class participation, projects and presentations.