



**CAREER & TECHNICAL  
EDUCATION**

# **HIGH SCHOOL SPORTS MEDICINE 2**

## **ACADEMIC & PROFESSIONAL SKILLS STANDARDS**

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**CATALINA FOOTHILLS SCHOOL DISTRICT**

Approved by the Governing Board  
May 28, 2019

# STANDARDS FOR SPORTS MEDICINE 2

Grades: 11-12

Sports Medicine 2 offers students an exciting opportunity to learn more about sports medicine. Students will gain a greater understanding of science and the structure and function of the human body as it relates to injury and illness. The course emphasizes health concepts familiar to medical careers such as anatomy, physiology, and kinesiology. Students will integrate technical, professional and career readiness skills as they engage and lead teams in healthcare scenarios, case studies, and simulations. The main topics of study include recognition of injury, prevention of injury, treatment, injury assessment, evaluation of injury, rehabilitation, emergency care, nutrition, first aid, and CPR. The course will prepare students for the OSHA Healthcare and CPR certifications.

## MEDICAL TERMINOLOGY

- SP2.1.1 Compare terminology based on their context within the body system.
- SP2.1.2 Use anatomical terms correctly based on information provided.
- SP2.1.3 Define terms associated with disease and body systems.
- SP2.1.4 Determine locations of organs, symptoms, etc., using directional terms, planes and sections.

## MUSCULAR SYSTEM

- SP2.2.1 Describe the components of the neuromuscular junction, and summarize the events involved in the neural control of skeletal muscle contraction and relaxation.
- SP2.2.2 Compare the different types of skeletal muscle contraction.
- SP2.2.3 Examine the types of muscle fibers to muscle performance.
  - Discuss muscle hypertrophy, atrophy, and aging.
  - Describe how physical conditioning affects muscle tissue.
- SP2.2.4 Describe the arrangement of fascicles in the various types of muscles and explain the resulting functional differences.
- SP2.2.5 Describe the classes of levers and explain how they make muscles more efficient.
- SP2.2.6 Explain how the name of a muscle can help identify its location, appearance, or function.

## ARTICULATIONS

- SP2.3.1 Categorize joints according to their structure or range of motion.
- SP2.3.2 Distinguish between the two classification schemes to categorize joints.
- SP2.3.3 Describe the basic structure of a synovial joint and the common synovial joint accessory structures and their functions.

## HEALTH AND PERFORMANCE

- SP2.4.1 Apply knowledge of metabolism and nutrient functions, food sources, and physiologic systems.
- SP2.4.2 Explain nutritional concepts in relation to basic nutrient caloric intake.
- SP2.4.3 Describe general rules of athletic hydration (for example: pre-practice/competition, competition, and post-practice/competition).

- SP2.4.4 Interpret tests used to determine fitness for cardiorespiratory endurance, strength, flexibility, and body composition (appropriate fat values).
- SP2.4.5 Examine the use of supplements and performance enhancers and their safety and efficacy.
- SP2.4.6 Demonstrate an understanding of the concepts and principles related to the development and implementation of a personal physical activity plan.
  - Apply general strength and conditioning training principles.

## SAFETY AND INFECTION CONTROL

- SP2.5.1. Apply strategies of risk management according to OSHA compliance, SDS chemical management, and injury and illness compliance solutions.
- SP2.5.2 Demonstrate proper procedures for removing and transporting an injured patient/client, including the use of proper body mechanics (for example: logroll, spine board, stretcher).
- SP2.5.3 Select personal protective equipment that prevent, support, or treat injuries and conditions (for example: headgear, mouth guards, shoulder pads, eyewear, thigh and knee pads, shin guards).

## ACUTE CARE – EMERGENCY AND NON-EMERGENCY SITUATIONS

- SP2.6.1 Describe sudden illnesses and their treatment (for example: fainting, seizures, diabetic shock, anaphylactic shock).
- SP2.6.2 Identify cause, signs, symptoms, and treatment of environmentally-related emergencies (for example: effects of heat and cold).
- SP2.6.3 Perform CPR (cardiopulmonary resuscitation) and AED (automated external defibrillator) procedures for infants, children, and adults.
- SP2.6.4 Demonstrate proper wound care (for example: cleaning, bandaging, and dressing).
  - Apply common taping techniques that prevent, support, or treat injuries and conditions.
  - Apply splinting techniques (for example: soft, rigid, anatomical).
- SP2.6.5 Explain the principles of triage with numerous injuries.
- SP2.6.6 Describe key components of emergency action plans and conditions for activation.
- SP2.6.7 Describe the appropriate supplies for an athletic first-aid kit.

## IMPACT OF INJURIES, SPORTS TRAUMA, AND PHYSICAL DYSFUNCTIONS AND DISORDERS

- SP2.7.1 Use the injury assessment and evaluation process (for example: H.O.P.S. [history, observation, palpation, special test]).
- SP2.7.2 Identify the signs and symptoms of injuries to the head, axial regions, upper body extremity, and lower body extremity.
- SP2.7.3 Explain the etiology (mechanism of injury) for common physical injuries.
- SP2.7.4 Describe common special tests used to evaluate joints (for example: ligament, valgus and varus, anterior and posterior drawer, apprehension).
- SP2.7.5 Analyze the tissues' response to injury.
- SP2.7.6 Investigate the cause of secondary injuries (for example: gait and carrying capacity).
- SP2.7.7 Demonstrate the proper use of PRICE (protection, rest, ice, compression, and elevation).

## THERAPEUTIC EXERCISE, TRAINING, AND RECONDITIONING

- SP2.8.1 Differentiate among various kinds of exercises (for example: isometric, isotonic, manual resistance, isokinetic, circuit training).
- SP2.8.2 Identify indications, contraindications, and safety precautions in strength, conditioning and exercise activities (for example: isotonic, isometric, and isokinetic).
- SP2.8.3 Explain strength, mobility, and balance as related to performance and injury prevention.
- SP2.8.4 Describe types of stretching and flexibility strategies (for example: static, ballistic, dynamic, proprioceptive neuromuscular facilitation).
- SP2.8.5 Apply appropriate rehabilitation progression (for example: return- to-play criteria [full strength, free from pain, skill performance tests, emotional readiness]).

## APPLICATION OF PSYCHOLOGICAL TECHNIQUES – PHYSICAL PERFORMANCE INJURY EVALUATION AND REHABILITATION

- SP2.9.1 Describe emotional/psychological responses to injury and rehabilitation (for example: depression, anxiety, fear).
- SP2.9.2 Explain motivational techniques for physical conditioning and rehabilitation (for example: goal-setting, positive reinforcement, celebrate successes).

## PROFESSIONAL SKILLS: PROFESSIONALISM & ORGANIZATIONAL CULTURE

- SP2.10.1 Demonstrate professionalism in the workplace (being on time, proper dress, courteousness).
  - Follow protocol(s) related to behavior, appearance, and other expectations.
  - Explain the importance of “dress for success.”
- SP2.10.2 Represent the school [or organization] in a positive manner, demonstrating the school’s [or organization’s] mission and core values.
  - Communicate the mission and core values of the school [or organization].
  - Perform my work with a positive attitude.
- SP2.10.3 Demonstrate respect for personal and professional boundaries (distinguish between personal and work-related matters).
  - Distinguish between personal and work-related matters.
- SP2.10.4 Interact respectfully with others (cross-cultural, intergenerational, individuals with disabilities); act with integrity.
  - Address challenges with sensitivity.
- SP2.10.5 Produce high quality work that reflect professional pride and contributes to organizational success.
  - Create work products in a timely manner that are high quality and positively represent the organization.
- SP2.10.6 Take initiative to develop skills and improve work performance.
  - Identify and apply strategies to improve my performance.

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## PROFESSIONAL SKILLS: COMPLEX COMMUNICATION (TRADITIONAL AND DIGITAL)

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- SP2.11.1 Communicate effectively in preparation for a diverse work environment (required: style, format, and medium appropriate to audience/culture/generation, purpose and context; accuracy; use of appropriate technical/industry language; to resolve conflicts; address intergenerational differences/challenges; persuade others).
  - Use appropriate verbal and nonverbal modes of communication.
  - Address communications in a style that is appropriate to the audience and situation.
  - Respond in a timely manner to communications.
- SP2.11.2 Use documentation (for example: itineraries and schedules) to plan and meet client needs.
- SP2.11.3 Use appropriate technologies and social media to enhance or clarify communication.
  - Use professional etiquette and follow applicable laws and regulations for web-, email-, and social media-based communications.
  - Verify the accuracy of information and authority of sources.
- SP2.11.4 Use a variety of interpersonal skills, including tone of voice and appropriate physical gestures (for example: eye contact, facing the speaker, active listening) during conversations and discussions to build positive rapport with others.
  - Demonstrate appropriate active listening skills.
- SP2.11.5 Pose and respond to questions, building upon others' ideas in order to enhance the discussion; clarify, verify, or challenge ideas and conclusions with diplomacy.
  - Ask questions to obtain accurate information.

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## PROFESSIONAL SKILLS: SELF-INITIATIVE AND SELF-DIRECTION

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- SP2.12.1 Apply the skills and mindset of self-direction/self-regulation to accomplish a task or project.
  - Establish priorities and set challenging, achievable goals.
  - Create a plan with specific timelines for completion to achieve the goals.
  - Take initiative to select strategies, resources and/or learning opportunities to accomplish the task(s) in the plan.
  - Identify the success criteria/metrics to determine the effectiveness of the outcome for each goal.
- SP2.12.2 Select and use appropriate technologies to increase productivity.
  - Use appropriate technology tools and resources to create and deliver a product.
- SP2.12.3 Exercise initiative and leadership (for example: recognize and engage individual strengths, plan for unanticipated changes, pursue solutions/improvements).
  - Reflect upon learning (strengths and weaknesses) and use feedback to modify work or improve performance.
  - Persist when faced with obstacles or challenges.

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## PROFESSIONAL SKILLS: CRITICAL THINKING AND INNOVATION

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- SP2.13.1 Identify problems and use strategies and resources to innovate and/or devise plausible solutions.
  - Use relevant criteria to eliminate ineffective solutions or approaches and select those that are plausible; put selected alternatives through trials to determine their helpfulness or benefit.
- SP2.13.2 Take action or make decisions supported by evidence and reasoning.
  - Evaluate sources of evidence, the accuracy and relevance of information, and the strengths of arguments.

- Demonstrate ethical reasoning and judgment by clearly sharing multiple perspectives on why the proposed course of action is ethically the best decision.
- Use inquiry and reflection to take action.
- Explain why a proposed course of action is ethically the best decision.
- SP2.13.3 Transfer knowledge/skills from one situation/context to another.
  - Apply knowledge and skills in new contexts.

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## PROFESSIONAL SKILLS: COLLABORATION

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- SP2.14.1 Take responsibility for any role on a team and accurately describe and perform the duties of each role, including leadership.
  - Assess project needs and work with a team in a positive manner to create a final project.
  - Build team relationships.
- SP2.14.2 Integrate diverse ideas, opinions, and perspectives of the team and negotiate to reach workable solutions.
  - Contribute personal strengths to a project.
  - Respect the contributions of others.
  - Utilize technologies that promote collaboration and productivity, as appropriate or needed.
- SP2.14.3 Prioritize and monitor individual and team progress toward goals, making sufficient corrections and adjustments when needed.
  - Proactively solicit feedback; accept and show appreciation for constructive feedback.
  - Act upon feedback to achieve team goals.
  - Develop a plan for improving individual participation and group productivity.
- SP2.14.4 Submit high-quality products that meet specifications for assigned tasks.
  - Critique and reflect on individual and collaborative strengths and weaknesses.