



**CAREER & TECHNICAL  
EDUCATION**

# **HIGH SCHOOL SPORTS MEDICINE 3**

## **ACADEMIC & PROFESSIONAL SKILLS STANDARDS**

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**CATALINA FOOTHILLS SCHOOL DISTRICT**  
Approved by the Governing Board  
May 28, 2019

# STANDARDS FOR SPORTS MEDICINE 3

Grades: 11-12

Sports Medicine 3 is designed to prepare students for employment opportunities in health care as well as post-secondary academic endeavors. The focus of Sports Medicine 3 is on the application of skills learned in Sports Medicine 1 and 2, with an emphasis on the totality of injury management, which includes pathology, immediate management, diagnostic imaging, definitive and differential diagnosis, medical management, surgical intervention, post-injury and/or post-surgical management, and rehabilitation. Through a combination of collaborative and self-directed projects, students will apply their knowledge in real-world experiences in Tucson-area internships/externships. Students are responsible for evaluating potential internship placements, submitting a letter of intent, and ensuring completion of all appropriate paperwork prior to the beginning of the academic year. The course will prepare students for the CMAC (Clinical Medical Assistant Certification) and PTTC (Physical Therapy Technician/Aide Certification).

## HEALTHCARE ORGANIZATION AND ADMINISTRATION ACTIVITIES

- SP3.1.1 Describe the basics of health insurance (for example: co-pay, third-party payment, reimbursement).
- SP3.1.2 Describe and implement the process of procurement, maintenance, and inventory of supplies and equipment.
- SP3.1.3 Use common resources to stay current with advances in healthcare.

## MUSCULAR PHYSIOLOGY

- SP3.2.1 Describe the mechanism responsible for the different amounts of tension produced in a muscle fiber
- SP3.2.2 Describe the mechanisms by which muscle fibers obtain the energy to power contractions.
  - Relate types of muscle fibers to muscle performance.
  - Distinguish between aerobic and anaerobic endurance.

## THERAPEUTIC MODALITIES AND PAIN MANAGEMENT

- SP3.3.1 Explain indications, contraindications, safety precautions, and applications related to modalities (for example: thermotherapy, cryotherapy, electric stimulation, ultrasound, hydrotherapy, compression).
- SP3.3.2 Explain indications, contraindications, safety precautions, and proper techniques for gait training (for example: weight bearing assistive device, prosthetics, orthotic devices, crutches and canes).
- SP3.3.3 Distinguish among pain characteristics (sharp, dull, or achy; stabbing or throbbing; constant, cramping, or intermittent), and assess pain level using a rating scale (for example: 1-10; smiley face scale).

## MECHANISMS AND CHARACTERISTICS OF MUSCULOSKELETAL AND NERVE TRAUMA

- SP3.4.1 Differentiate various injuries to the musculotendinous unit, synovial joint, bone, and nerve tissue.
- SP3.4.2 Identify the anatomical characteristics of the musculotendinous unit, synovial joint, bone, and nerve.
- SP3.4.3 Describe how mechanical loads applied to the musculotendinous unit, synovial joint, bone, and nerve produce injury in these structures.
- SP3.4.4 Discuss the five types of tissue loads that can produce stress and strain.

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## TISSUE RESPONSE TO INJURY

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- SP3.5.1. Explain the healing process relative to various soft-tissue structures, including cartilage, ligament, muscle, tendon, and nerve.
  - Classify the physiological events that must take place during each phase of healing.
  - Contrast the phases of the healing process.
  - Identify factors that may impede the healing process.
- SP3.5.2 Differentiate among the three mechanisms of pain control.
- SP3.5.3 Examine the various techniques for assessing pain.

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## PHARMACOLOGY, DRUGS, AND SPORTS

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- SP3.6.1 Identify the various methods by which drugs can be administered.
- SP3.6.2 Examine the various protocols that the athletic trainer should follow for administering over-the-counter medications to patients.
- SP3.6.3 Categorize the various drugs that can be used to treat infection, reduce pain and inflammation, relax muscles, treat gastrointestinal disorders, treat symptoms of colds and congestion, and control bleeding.
- SP3.6.4 Explain problems related to substance abuse in athletics.

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## PROFESSIONAL SKILLS: PROFESSIONALISM & ORGANIZATIONAL CULTURE

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- SP3.7.1 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.”
- SP3.7.2 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.
- SP3.7.3 Demonstrate respect for personal and professional boundaries (distinguish between personal and work-related matters).
  - Distinguish between personal and work-related matters.
- SP3.7.4 Interact respectfully with others (cross-cultural, intergenerational, individuals with disabilities); act with integrity.
  - Address challenges with sensitivity.
- SP3.7.5 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.
- SP3.7.6 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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- SP3.8.1 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.
- SP3.8.2 Use documentation (for example: itineraries and schedules) to plan and meet client needs.
- SP3.8.3 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.
- SP3.8.4 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.
- SP3.8.5 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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- SP3.9.1 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.
- SP3.9.2 Select and use appropriate technologies to increase productivity.
  - Use appropriate technology tools and resources to create and deliver a product.
- SP3.9.3 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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- SP3.10.1 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.
- SP3.10.2 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.
- SP3.10.3 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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- SP3.11.1 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.
- SP3.11.2 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.
- SP3.11.3 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.
- SP3.11.4 Submit high-quality products that meet specifications for assigned tasks.
  - Critique and reflect on individual and collaborative strengths and weaknesses.