



Sports Medicine 1

Course Code: 5555

COURSE DESCRIPTION: Sports Medicine 1 emphasizes sports medicine career exploration and the prevention of athletic injuries, including the components of exercise science, kinesiology, anatomy, first aid, and CPR. Students interested in healthcare careers associated with sports medicine such as athletic training and rehabilitation careers would benefit from this course.

GENERAL REQUIREMENTS: This course is recommended for students in grades 9-12.

PRE-REQUISITES: Previous or concurrent course work in biology is recommended.

CREDIT: CP -1 unit (120 hours) or 2 units (240 hours)

CONCENTRATOR: Completes SM1 & SM2

Completers: Sports Medicine Completer : An example of a three-unit completer: SM1, SM2, SM3 (or in lieu of SM3, Medical Terminology, Health Science Human Structure and Function, Sports Nutrition 2, AHS 102, or AHS 104) Example of four-unit completer – SM1, SM2, Med Term, SM WBL. Please refer to the completer requirements found on the SCDE website.

Industry Aligned Credentials: OSHA 10, or any other applicable credentials as listed in the Student Reporting Guide

Stackable Credentials: First-Aid, Heartsaver CPR/AED, NFHS Learn courses, or any other applicable credentials as listed in the Student Reporting Guide

Sports Medicine 1

Foundation Standard 1: Academic Foundation

Healthcare professionals will know the academic subject matter required for proficiency within their area. They will use this knowledge as needed in their role. The following accountability criteria are considered essential for students in a sports medicine program of study.

1. **Define and discuss** sports medicine and its development throughout history.
2. **Identify** the major bones and muscle groups of the body.
3. **Differentiate** between various types of body tissues
 - a. muscle tissue
 - b. epithelial tissue
 - c. nervous tissue
 - d. connective tissue

4. **Identify** and define the differences between:
 - a. bone
 - b. tendon
 - c. ligament
 - d. cartilage
 - e. muscle
5. **Discuss** the mechanical properties of tissues and types of tissue loading.
6. **Apply** mathematical computations related to sports medicine and healthcare procedures.
7. **Utilize** diagrams, charts, graphs, and tables related to healthcare.

Foundation Standard 2: Communications

Healthcare professionals will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.

1. **Recognize** appropriate oral and written communication with:
 - a. coaches
 - b. team physicians
 - c. parents
 - d. athletes
 - e. school
 - f. athletic administrators
 - g. other healthcare professionals
2. **Demonstrate** elements of written and electronic communication (spelling, grammar, formatting, and confidentiality).
3. **Demonstrate** the use of presentation software and/or presentation techniques for communicating to audiences.
4. **Identify** athletic training room forms such as:
 - a. treatment logs
 - b. rehabilitation records
 - c. emergency information cards
 - d. consent forms
5. **Use** appropriate oral and written medical terminology within the scope of practice, to **interpret, transcribe, and communicate** information, data, and observations.
6. **Apply** speaking and active listening skills.
7. **Interpret and model** verbal and non-verbal communication.
8. **Recognize and identify** common barriers to communication, including:
 - a. physical barriers
 - b. psychological barriers
 - c. interpretation of tone and attitude in written communications
9. **Describe** strategies and importance of social support for the injured athlete.
10. **Describe** the healthcare provider's role in dealing with various psychological reactions, including appropriate referrals to specialists

Foundation Standard 3: Systems

Healthcare professionals will understand how their role fits into their department, their

organization, and the overall healthcare environment. They will identify how key systems affect services they perform and quality of care.

1. **Describe** the roles and responsibilities of athletic training student aides (ATSA's)
2. **Discuss** the general administrative management roles of sports medicine team members.
3. **Understand** an organizational chart.
4. **Identify and comply** with principles of the Chain of Command.
5. **Identify and describe** the components and functionality of a sports medicine facility.

Foundation Standard 4: Employability Skills

Healthcare professionals will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills as needed.

1. **Explore** potential pathways for careers in healthcare, including sports medicine paths.
 - a. athletic training
 - b. physical therapy and PT assistant
 - c. occupational therapy and OT assistant
 - d. radiology technician
 - e. physician assistant
 - f. physicians
 - g. exercise physiologist
 - h. registered dietician
 - i. sports psychologist
2. **Explain** the educational process:
 - a. levels of education
 - b. credentialing requirements
 - c. employment opportunities
 - d. workplace environments
 - e. professional development
 - f. career growth potential for a sports medicine career path.
3. **Compare and contrast** various professional and student organizations related to sports medicine. (NATA, HOSA future health professionals, etc.)
4. **Identify and discuss** religious and cultural values as they impact healthcare
 - a. ethnicity
 - b. race
 - c. religion
 - d. gender
5. **Demonstrate** respectful and empathetic interactions and treatment of all patients/clients within a diverse population, such as customer service, patient satisfaction, civility, etc.
6. **Demonstrate** basic professional standards:
 - a. hygiene
 - b. dress
 - c. language

- d. confidentiality
 - e. behavior
7. **Identify** personal traits or attitudes desirable in a member of the career ready healthcare team:
- a. acceptance of criticism
 - b. competence
 - c. dependability
 - d. discretion
 - e. empathy
 - f. enthusiasm
 - g. honesty
 - h. initiative
 - i. patience
 - j. responsibility
 - k. self-motivation
 - l. tact
 - m. team player
 - n. willingness to learn
8. **Locate** a job posting and **identify** its components:
- a. position description
 - b. employment type
 - c. qualification
 - d. salary & benefits
 - e. application procedures
9. **Demonstrate** the process of obtaining employment by completing a job application.
10. **Identify and apply** appropriate strategies and considerations for the interview process.
11. **Identify** components of a personal portfolio to include
- a. resume
 - b. cover letter
 - c. sample projects
 - d. writing sample
 - e. work-based learning documentation
 - f. oral reports
 - g. service learning
 - h. community service
 - i. credentials
 - j. technology skills
 - k. leadership experience
 - l. student and professional organizations' documentation and recognition, etc.
 - m. professional and personal references

Foundation Standard 5: Legal Responsibilities

Healthcare professionals will understand the legal responsibilities, limitations, and implications of their actions within the healthcare delivery setting. They will perform their

duties according to regulations, policies, laws, and legislated rights of clients.

1. **Identify** legal responsibilities of a healthcare professional.
2. **Recognize and explain** the standards and differences of the Health Insurance Portability and Accountability Act (HIPPA) and the Federal Education Rights and Privacy Act (FERPA), and the importance of maintaining patient confidentiality.
3. **Define:**
 - a. malpractice
 - b. liability
 - c. negligence
 - d. assumption of risk
 - e. abandonment
 - f. standard of care
 - g. scope of practice
 - h. confidentiality
 - i. harassment
 - j. informed consent
4. **Identify** behaviors and practices that could result in malpractice, liability, and negligence.
5. **Discuss** Title IX and how it relates to equity in sports.
6. **Describe** the “Good Samaritan Law” and how it relates to student aides vs. certified athletic trainers or other licensed medical professionals.

Foundation Standard 6: Ethics

Healthcare professionals will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment. They will perform quality healthcare delivery.

1. **Identify** codes of ethics for various sports medicine professionals.
2. **Compare** personal and professional ethics.

Foundation Standard 7: Safety Practices

Healthcare professionals will understand the existing and potential hazards to clients, coworkers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.

1. **Explain** the importance of appropriate maintenance and inspection of player protective equipment.
2. **Describe** environmental risk factors associated with specific activities of the physically active.
3. **Describe** environmental safety considerations for participants in athletic facilities/venues.
4. **Discuss** the use of various devices and technologies identified in current research and position statements to determine unsafe environmental conditions.
5. **Identify** various blood borne pathogens.

6. **Practice** infection control procedures based on the use of standard precautions as established by the Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC).
7. **Explain** personal safety practices:
 - a. hygiene
 - b. sanitation
 - c. body mechanics
 - d. ergonomics
8. **Identify and comply** with safety signs, symbols, and labels.
9. **Identify** the components of a venue specific emergency action plan for athletic facilities.
10. **Identify** fire safety practices related to a sports medicine setting.

Foundation Standard 8: Teamwork

Healthcare professionals will understand the roles and responsibilities of individual members as part of the healthcare team, including their ability to promote the delivery of quality healthcare. They will interact effectively and sensitively with all members of the healthcare team.

1. **Identify** the members and roles of the sports medicine team.
2. **Examine** how sports medicine team members interact with each other.
3. **Discuss** attributes and attitudes of an effective leader.
4. **Apply** effective techniques for managing sports medicine team conflicts.

Foundation Standard 9: Health Maintenance Practices

Healthcare professionals will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among their clients.

1. **Describe** current FDA nutritional recommendations.
2. **Identify** basic nutrients including:
 - a. carbohydrates
 - b. fats
 - c. proteins
 - d. vitamins
 - e. minerals
 - f. water
3. **Discuss** nutritional concerns of the athlete such as:
 - a. appropriate hydration
 - b. types of diets
 - c. nutritional and performance enhancing supplements
 - d. pre/post-game meal considerations.
4. **Differentiate** between body weight and composition (body mass index -BMI), along with the factors influencing each.
5. **Identify** methods of calculating percent body fat and considerations associated with each.

6. **Discuss** how to measure body mass index (BMI) and how it is used to assess health risks.
7. **Describe** eating disorders, their management, and impact on athletic participation.
8. **Describe** the significance of health screenings and examinations (pre-participation exams).
9. **Describe** common medical conditions found during a pre-participation exam which may disqualify an athlete from participation.
10. **Identify** practices that promote prevention of disease and injury through education.
11. **Explain** the relationships between poor body mechanics and the potential for injury.
12. **Discuss** complementary and alternative health practices (ex: acupuncture, massage, chiropractic care, etc.)

Foundation Standard 10: Technical Skills

Healthcare professionals will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.

1. **Demonstrate** basic first aid skills.
2. **Demonstrate** cardiopulmonary resuscitation (CPR) and automated external defibrillation (AED) skills.
3. **Demonstrate** the ability to fit crutches.
4. **Instruct** the proper use of crutches in three-point and four-point gaits.
5. **Observe, measure, record, and evaluate** vital signs, including normal ranges for:
 - a. temperature
 - b. skin color
 - c. pulse
 - d. respiration
 - e. level of consciousness
 - f. oxygen saturation
 - g. blood pressure
6. **Recognize and identify** the signs and symptoms of:
 - a. a concussion
 - b. heat illness
 - c. cardiac event
 - d. shock
7. **Perform** measurement of height and weight.
8. **Demonstrate** use of the Snellen Eye Chart.
9. **Identify** basic terminology and components of:
 - a. taping
 - b. wrapping
 - c. padding
10. **Differentiate** between different types of adhesive and cohesive tape, wrapping, and padding materials. Determine their appropriate applications.
11. **Differentiate** between common types of acute and chronic injuries (sprains, strains, fractures, tendinitis, etc.)

12. **Differentiate** between various types of stretching techniques.
13. **Describe** principles of physical conditioning.
14. **Explain** the role of overtraining pertaining to risk of injury.
15. **Compare and contrast** various splinting material and devices used in a sports medicine setting.
16. **Identify** appropriate components of care for the spine-injured athlete.

Foundation Standard 11: Information Technology Applications

Healthcare professionals will use information technology applications required within all career specialties. They will demonstrate use as appropriate to healthcare applications.

1. **Understand** the use of technology in injury evaluation and tracking.
2. **Demonstrate** use of basic computer procedures and file organization.
3. **Demonstrate** appropriate use of email, social, and educational media.

RESOURCES:

Browse catalog at www.mysctextbooks.com for latest instructional materials available to South Carolina public schools for sports medicine courses.

Clover, Jim Sports Medicine Essentials: Core Concepts in Athletic Training and Fitness Instruction, Third edition, Cengage Learning, 2016

France, Robert C. Introduction to Sports Medicine and Athletic Training: Second Edition. Delmar, Cengage Learning, 2011.

Prentice, William E. Essential of Athletic Injury Management, 7th Edition: Student Edition. Glencoe McGraw-Hill, 2008.

IMPORTANT WEB SITES:

South Carolina Department of Education
www.ed.sc.gov

HOSA
www.hosa.org

South Carolina HOSA
www.schosa.org

National Athletic Trainers' Association
www.nata.org

South Carolina Athletic Trainers' Association

www.scata.org

National Consortium for Health Science Education

www.healthscienceconsortium.org

Certification Websites:

American Medical Certification Association (AMCA)

[Certification Exam | AMCA \(amcaexams.com\)](http://amcaexams.com)

American College of Sports Medicine

www.acsm.org

NFHS Learn

[NFHS Learn | Interscholastic Education, Made Easy](http://nfhs.org)

American Heart Association

<https://www.heart.org>

American Red Cross

<http://www.redcross.org/>

EDUCATIONAL/CLASSROOM RESOURCES:

America's Career InfoNet

<http://www.acinet.org/>

Annals of Internal Medicine

<http://www.annals.org/>

Anatomy in Clay

<http://www.anatomyinclay.com/>

Be Something Amazing

<http://besomethingamazing.com/>

CNN Health

<http://www.cnn.com/HEALTH/>

CollegeNet

<http://www.collegenet.com/elect/app/app>

CreativEd Services

<http://www.creativedservices.com/>

Health Central

<http://www.healthcentral.com/>

JAMA: The Journal of the American Medical Association
<http://jama.ama-assn.org/>

Learn and Serve America's Service Learning Clearinghouse
<http://www.servicelearning.org/>

Medline Plus: Medical Encyclopedia
<http://www.nlm.nih.gov/medlineplus/encyclopedia.html>

Medical Mysteries on the Web
<http://medmyst.rice.edu/>

Medicine Net: We Bring Doctors' Knowledge to You (Medical Dictionary)
<http://www.medterms.com/script/main/hp.asp>

MedlinePlus: Trusted Health Information for You
<http://medlineplus.gov/>

Medscape from WebMD
<http://www.medscape.com/>

MT Desk: Complete Online Resource Center for Medical Transcription Professionals
<http://www.mtdesk.com/>

National Institutes of Health, Office of Science Education
<http://science.education.nih.gov/lifeworks>

New England Journal of Medicine
<http://content.nejm.org/>

Physicians' Desk Reference
<http://www.pdr.net/login/Login.aspx>

PubMed: A service of the US National Library of Medicine and the National Institutes of Health
<http://www.ncbi.nlm.nih.gov/PubMed>

RxList: The Internet Drug Index
<http://www.rxlist.com/script/main/hp.asp>

Starla's Creative Teaching Tips
<http://www.starlasteachtips.com/>

States' Career Clusters
www.careerclusters.org

Texas Health Science

<http://www.texashste.com/>

The Riley Guide: Employment Opportunities and Job Resources on the Internet

<http://www.rileyguide.com/>

U.S. Public Health Service

<http://www.usphs.gov/>

Web MD

<http://www.webmd.com/>

Weil (Andrew Weil, MD) Your Trusted Health Advisor

<http://www.drweil.com/>

Wellness Web

<http://www.wellweb.com/>

World Health Online

<http://www.healthy.net/>