

The *Sports Medicine CPU* introduces students to a growing field in the health care industry that is creating many exciting job opportunities for properly trained personnel. Sports medicine is a circle of care that begins on the playing field, advances to treatment, progresses to rehabilitation, and returns to the playing field.

Students use hands-on activities that introduce them to proper stretching techniques, athletic taping, on-the-spot treatment of athletic injuries, rehabilitation, nutrition, and much more.



Areas Covered

- ◆ Exploration of the sports medicine team
- ◆ Examination of anatomy and physiology of the cardiovascular, muscular, and skeletal systems
- ◆ Basic kinesiology and biomechanics
- ◆ Physical fitness assessment
- ◆ Athletic taping and strapping procedures, including:
 - Basic non-injury ankle taping
 - Taping of simple thumb and finger injuries
 - Restriction of thumb flexion, extension, and abduction
- ◆ Assembling sport-specific first aid kits
- ◆ Sport-specific injury diagnosis
- ◆ Sport-specific injury rehabilitation techniques
- ◆ Importance of nutrition in athletics
- ◆ Testing the effects of drugs and other substances on athletic performance
- ◆ Skills and knowledge to aid students in various HOSA competitions



Career Pathway Unit Includes:

Sports Medicine CD and Instructor's Overview Booklet, Ankle Exercise Board, Daphnia Magna Culture Kit, Effects of Drugs Kit, Exercise Mat, Facilitated Stretching Textbook, Goniometer Skills Cart™, Microscope, Muscle Shoulder Model, Portable Taping Block, Skinfold Caliper Set, Sports Medicine Essentials Textbook, Stretching Textbook, Therapeutic Exercises Using Resistive Bands

Sports Medicine Goals & Activities

- Research the field of sports medicine.
- Explore career opportunities in sports medicine.
- Define various terms associated with anatomy, physiology, and body positions.
- Explore the components and terminology of the cardiovascular system, the muscular system, and the skeletal system.
- Discover the basics of kinesiology and body mechanics.
- Explore the terminology and various measuring techniques for studying range-of-motion.
- Perform range-of-motion measurements using a 360 degree goniometer.
- Explore the basic concepts of health, wellness, and fitness.
- Perform body fat measurements and calculations using skin fold calipers.
- Understand and calculate the differences between resting heart rate, recovery heart rate, and target heart rate zone.
- Discover the importance of stretching and flexibility.
- Examine the basics of facilitated stretching.
- Perform facilitated stretching.
- Explore basic injuries to the wrist and hand.
- Demonstrate an understanding of the basics of athletic taping for the treatment and prevention of injuries.
- Complete two basic tapings of injured fingers.
- Perform a taping that restricts thumb flexion, extension, and abduction.
- Examine the terminology, equipment, and techniques associated with basic non-injury ankle taping.
- Perform two basic ankle tapings.
- Examine the components of a basic first aid kit.
- Compare a general first aid kit to a sport-specific first aid kit.
- Discover the proper safety and aseptic techniques to use when working with patients.
- Discover how to check for vital signs.
- Practice dealing with minor injuries that commonly occur in athletics.
- Discover the basics of physical rehabilitation and sports medicine.
- Perform simulated manual muscle tests and range-of-motions tests to assess injuries.
- Discover how proper stretching can be used in the physical rehabilitation of athletic injuries.
- Understand how to deal with patients involved in physical rehabilitation.
- Discover the many advantages and techniques of using resistive bands as a therapeutic resource.
- Develop and simulate a rehabilitation program using resistive bands and an ankle exercise board.
- Research drug use and ethics in sports medicine.
- Examine the effects of alcohol, nicotine, adrenaline, caffeine, lactic acid, and aspirin on the human body by running tests on daphnia magna.
- Conduct research regarding a recent development in sports medicine.



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