Delano Joint Union High School District – Career Technical Education

SPORTS MEDICINE SYLLABUS

Instructor: Mr. Gonzalez

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Extension: 1504 or 1603 (5th/6th period)

INDUSTRY SECTOR: Health Science and Medical Technology Sector

PATHWAY: Patient Care

CALPADS TITLE: Advanced Patient Care (Capstone)

CALPADS CODE: 7922

COURSE DESCRIPTION:

This class is an introduction to the sports medicine field. This course is a lecture-laboratory science elective designed to provide a well-rounded and challenging academic experience for students interested in sports medicine, athletic training, physical therapy, exercise science, emergency medicine, or any other related medical or paramedical field. Over the course of the semester, students will learn about the 12 content areas of Athletic Training. Students will participate in detailed examinations of the various kinesiological, anatomical, physiological, and biomechanical factors that influence the “human machine”. This course includes basic prevention, recognition, evaluation, and rehabilitation of athletic injuries. The instructor will properly advise students who take this course of limitations and proper skills applications.

Course Goals and Objectives

1.Demonstrate an ability to obtain information from various sources and then report the findings in both written and oral formats. 2.List and describe the legal concerns associated with Sports Medicine/Athletic Training. 3.Identify and discuss various career opportunities within the Sports medicine field. 4.Identify life threatening situations and know what steps should be taken first. 5.Describe and demonstrate the procedures (ABC’s / HOPS / SOAP) necessary for assessing life-threatening and non-life-threatening conditions of the body. 6.Identify and describe the physiological changes that tissues undergo following injury. 7.Describe and demonstrate appropriate procedures related to the treatment and rehabilitation of various sport-related injuries. 8.Identify symptoms of concussion, proper management, and safe return to play protocol. 9.Discuss the effect of temperature (hot and cold) on cellular metabolism. 10.Identify and describe various factors that predispose the body to injury. 11.Identify and discuss the ways in which injuries are classified and graded. 12.Discuss the effect that various types of stress have on the function and structure of human tissues. 13.Identify the location, structure, and function of key anatomical components of each body region. 14.Discuss common/acute/chronic injuries in specific sports and proper management. 15.Select and demonstrate proper application of various preventive and therapeutic taping and bandaging techniques commonly used in sports medicine. 16.Apply the scientific method to solve problems associated with the human body. 17.Develop a well-rounded conditioning program based on current scientific guidelines 18.Develop a safe/effective Return to play protocol for a specific injury. 19.Research for and prepare written research reports using professional medical journals and the Internet as primary sources of information.

PREREQUISITES:

Health Careers

Medical Terminology

Textbook:

Principles of Athletic Training – A competency bases approach. William E. Prentice.

Certifications:

First-Aid/CPR/AED for Infant, child Adult Certification

METHODS OF INSTRUCTION:

Direct instruction

Group and individual applied projects

Multimedia Demonstration

Field trips

Guest speakers

STUDENT EVALUATION:

Student projects

Written work

Exams Observation record of student performance

Completion of assignment

**COURSE OUTLINE**

1. **FIRST-AID/CPR/AED FOR INFANT, CHILD, AND ADULT**
   1. Preparing to help
   2. Primary Assessment
   3. CPR
      1. CPR Lab
   4. AED
      1. AED Lab
   5. MIDTERM
   6. Sudden Injury
   7. Sudden Illness
   8. Environmental Emergencies
   9. Additional Considerations
2. **RISK MANAGEMENT & PATHOLOGY**
   1. Athletic Training as a Health Care provider
      1. Historical Perspectives
      2. Sports Medicine and Athletic Training
      3. Roles and Responsibilities of the Athletic Trainer
      4. Accreditation of Athletic Trainers
   2. Fitness and Conditioning Techniques
      1. Principles of Conditioning
      2. Cardiorespiratory Endurance
      3. Importance of Strength, Endurance, and Power
      4. Improving and Maintaining Flexibility
   3. Mechanisms and Characteristics of Musculoskeletal/Nerve Trauma
      1. Mechanical Injury
      2. Musculotendinous unit injuries
      3. Synovial Joint Injuries
      4. Bone Injuries Nerve Trauma
      5. Body Mechanics and injury susceptibility
   4. On-the-field Acute care and Emergency Procedures
      1. Emergency Action Plan
      2. Primary Assessment
      3. Secondary Survey
      4. Moving and Transporting the injured patient
3. **LOWER EXTREMITY MUSCULOSKELETAL CONDITIONS**
   1. The foot and toes
      1. Foot anatomy
      2. Functional anatomy and biomechanics
      3. Prevention of foot injuries
      4. Foot assessment
      5. Foot pathologies
      6. Foot rehabilitation
   2. The ankle and lower leg
      1. Ankle anatomy
      2. Functional anatomy and biomechanics
      3. Prevention of Ankle injuries
      4. Ankle assessment
      5. Ankle pathologies
      6. Ankle rehabilitation
   3. The knee and related structures
      1. Knee anatomy
      2. Functional anatomy and biomechanics
      3. Prevention of knee injuries
      4. Knee assessment
      5. Knee pathologies
      6. Knee rehabilitation
   4. The thigh, hip, groin, and pelvis
      1. The thigh, hip, groin, and pelvis anatomy
      2. Functional anatomy and biomechanics
      3. Prevention of The thigh, hip, groin, and pelvis injuries
      4. The thigh, hip, groin, and pelvis assessment
      5. The thigh, hip, groin, and pelvis pathologies
      6. The thigh, hip, groin, and pelvis rehabilitation
   5. Lower Extremity Final
      1. Written Exam
      2. Practical Exam
4. **UPPER EXTREMITY MUSCULOSKELETAL CONDITIONS**
   1. The shoulder complex
      1. Shoulder complex anatomy
      2. Functional anatomy and biomechanics
      3. Prevention of Shoulder injuries
      4. Shoulder assessment
      5. Shoulder pathologies
      6. Shoulder rehabilitation
   2. The elbow
      1. The elbow anatomy
      2. Functional anatomy and biomechanics
      3. Prevention of elbow injuries
      4. Elbow assessment
      5. Elbow pathologies
      6. Elbow rehabilitation
   3. The forearm, wrist, hand, and fingers
      1. The forearm, wrist, hand, and fingers anatomy
      2. Functional anatomy and biomechanics
      3. Prevention of The forearm, wrist, hand, and fingers injuries
      4. The forearm, wrist, hand, and fingers assessment
      5. The forearm, wrist, hand, and fingers pathologies
      6. The forearm, wrist, hand, and fingers rehabilitation
   4. Head, face, eyes, ears, and throat
      1. The Head, face, eyes, ears, and throat anatomy
      2. Functional anatomy and biomechanics
      3. Prevention of Head, face, eyes, ears, and throat injuries
      4. The Head, face, eyes, ears, and throat assessment
      5. The Head, face, eyes, ears, and throat pathologies
      6. The Head, face, eyes, ears, and throat rehabilitation
   5. Upper extremity Exam
      1. Written Exam
      2. Practical Exam

Student Expectations:

1. Behave and communicate in a manner that you would like to be treated

2. Arrive on time to class

3. No music or cell phones in class.

4. No food or drinks allowed in class

Grading: A 100% scale will be used for the letter grade A-F

Quizzes…………………………………………………………………………………15%

Assignments…………………………………………………………………………15%

Lab Practical…………………………………………………………………………15%

Notes……………………………………………………………………………………15%

Final Lab Practical…………………………………………………………………20%

Final Exam…………………………………………………………………………….20%

Total…………………………………………………………………………………….100%

\*Syllabus Subject to Change