

Sports Medicine

Essential Curriculum Goals

Develop an acceptable level of fitness and an understanding of the components of fitness and an appreciation of the life-long value of fitness through personalized physical education activities

Develop through a purposeful physical education experience a more positive self-concept appropriate to social and emotional behaviors, self-direction and an appreciation of individual differences

Develop physical skills and acquire knowledge of efficient and creative movement through participation in a sequential program of varied activities and develop an appreciation for the value of this type of movement

Develop an awareness of safety practices and procedures

Elective

PESM. Sports Medicine

Standard Indicators

- PESM.10.** Organization and Administration—Students will discuss, understand and apply all administrative components of an athletic training program.
- PESM.10.01** Describe the history of sports medicine and athletic training
 - PESM.10.02** Identify the essential components of an effective sports medicine program
 - PESM.10.03** Identify personal characteristics of sports medicine practitioners
 - PESM.10.04** Define medical terminology and abbreviations
 - PESM.10.05** Describe and demonstrate athletic treatment center operational protocols including record keeping, inventory and budgeting
 - PESM.10.06** Identify and describe how blood-borne pathogens are transmitted, universal precautions, and disposal of hazardous waste and sanitation
 - PESM.10.07** Identify types of liability concerns and how to prevent such occurrences
 - PESM.10.08** Describe the disqualifying conditions for athletes and the procedures for administering pre-participation physical examinations

- PESM.10.09** Describe and demonstrate the functions and uses of various sports medicine supplies and equipment
- PESM.20.** Emergency Procedures—Students will demonstrate the ability to assess and implement
- PESM.20.01** Demonstrate the proper procedure in providing cardiopulmonary resuscitation
- PESM.20.02** Describe and demonstrate various first-aid procedures such as splinting and bleeding control
- PESM.20.03** Demonstrate the procedures in obtaining the vital signs of an injured person
- PESM.20.04** Identify the steps to take in planning for athletic emergencies
- PESM.20.05** Demonstrate the function of the emergency equipment necessary for handling athletic emergencies
- PESM.20.06** Describe and demonstrate the anatomical basis, specific evaluative procedures, preventative exercises and techniques, and treatment techniques for head and cervical spine injuries
- PESM.20.07** Describe and demonstrate how to recognize and treat environmental illnesses such as heat stroke, heat exhaustion and hypothermia
- PESM.30.** Athletic Injuries: Prevention, evaluation, treatment, taping and wrapping, rehabilitation and protective equipment—Students will demonstrate skills essential for developing a hypothesis of an injury/illness and formulating a plan for treatment.
- PESM.30.01** Describe how the human body reacts to injury
- PESM.30.02** Identify the differences between acute and chronic injuries/illnesses
- PESM.30.03** Identify different types of sports injuries/illnesses
- PESM.30.04** Perform an injury/illness evaluation using the HOPER procedure
- PESM.30.05** Describe and demonstrate basic treatment procedures for sports injuries (RICE)
- PESM.30.06** Identify the basic procedures and supplies needed for athletic taping and wrapping
- PESM.30.07** Describe and demonstrate the anatomical basis, preventive exercises, specific evaluative procedures, treatment techniques, and specific taping and wrapping procedures for the foot, ankle and lower leg injuries; knee and thigh injuries; shoulder injuries; arm and elbow injuries; trunk injuries, such as hip, spine, and rib; internal injuries, such as abdominal and thoracic; wrist, hand and finger injuries
- PESM.30.08** Describe and demonstrate the proper fit, care and usage of sports protective equipment
- PESM.30.09** Identify types of function of protective equipment
- PESM.30.10** Demonstrate how to make custom protective equipment

- PESM.30.11** List and describe goals and objectives of various types of rehabilitation programs and how to evaluate an athlete's progress in a program
- PESM.30.12** Describe and demonstrate various types of exercise and their functions in a rehabilitation program
- PESM.30.13** Describe and demonstrate the use of range of motion, strengthening, and proprioceptive exercises in a rehabilitation program for all major areas of the body
- PESM.30.14** Describe and demonstrate special rehabilitation techniques such as proprioceptive neuromuscular facilitation, and joint mobilization
- PESM.30.15** Describe and demonstrate a functional return to play criteria

PESM.40. Physiology of Exercise and Fitness for Sports – Students will learn and utilize principles of exercise physiology and biomechanics to design a purposeful safe and effective program consistent with the athlete's personal needs.

- PESM.40.01** Describe and demonstrate how to measure fitness with body fat testing, strength and conditioning tests and flexibility tests
- PESM.40.02** Describe and demonstrate the principles and procedures of strength training, flexibility, cardiovascular conditioning such as aerobic and anaerobic and proprioception
- PESM.40.03** Demonstrate how to set up an individual on a program for injury prevention or general fitness enhancement based on the individual's needs

PESM.50. Therapeutic Modalities and Pharmacology—Students will recognize and use purposefully, the components and principles of various therapeutic modalities and medications

- PESM.50.01** Describe and demonstrate the physiological effects, indications and contraindication of the use of the following modalities: ice, ultrasound, heat, massage, hydrotherapy, miscellaneous modalities, electrical stimulation and nutrition
- PESM.50.02** List the various components of food and describe the functions of each component
- PESM.50.03** Develop a pre-game nutrition plan based on the components of a pre-event meal
- PESM.50.04** Describe how to safely lose or gain weight
- PESM.50.05** Describe the signs, symptoms and treatment of various eating disorders and discuss as the relationship to sport performance
- PESM.50.06** Identify the physiological and psychological effects of performance enhancing supplements and drugs
- PESM.50.07** List and describe the effects and side effects of performance enhancing supplements, drugs including anabolic steroids

- PESM.50.08** Describe drug testing procedures and implications of the results
- PESM.50.09** Identify types of functions of various prescription and OTC drugs used in sports medicine
- PESM.50.10** Identify the effects illicit drugs impose physically and psychologically on an athlete's body
- PESM.60.** Sports Psychology—Students will identify various psychological methods available to athletes for coping and preparing for competition.
- PESM.60.01** Demonstrate various psychological methods to help athletes cope with injuries
- PESM.60.02** Demonstrate various psychological methods to help athletes prepare for competition
- PESM.70.** Internal Medicine – Students will conduct a primary evaluation of illnesses commonly occurring by an athlete and conduct appropriate primary care as well as referral to a physician for diagnosis and medical treatment.
- PESM.70.01** Describe and demonstrate when applicable, the etiology and treatment of the following conditions: Colds and influenza; Diabetes; allergies; Anemia; gastrointestinal tract problems; AIDS; exercise induced asthma; Sudden Death in Athletes; the female athlete; common dermatological problems such as fungal, bacteria and viral infections; other miscellaneous conditions
- PESM.70.02** Describe and demonstrate medical procedures and equipment, including the use of otoscope; ophthalmoscope; stethoscope for hearing, lung and bowel sounds, etc.
- PESM.80.** Careers, Professional Preparation and Field Experiences—Students will interpret the role of athletic trainer as a professional discipline in various settings, as well as investigate options available for field experiences and other career options.
- PESM.80.01** List and describe the various career option, including educational requirements in the sports medicine field
- PESM.80.02** List and describe the professional organizations and association of various sport medical professions
- PESM.80.03** Demonstrate leadership abilities in the field of sports medicine through work with the school's athletic department
- PESM.80.04** Demonstrate job search methods in the health care field
- PESM.80.05** Demonstrate how to write an effective resume
- PESM.80.06** Demonstrate composure and effective communication skills in a mock job interview
- PESM.80.07** List and describe several issues relating to various sports medicine professions and how these issues impact each profession

PESM.80.08 Observe procedures and assist, when possible, the following sports medicine settings: Athletic Training – high school, college or clinical
Physical Therapy – outpatient, inpatient or sports medicine
Medicine – including specialties such as orthopedics, pediatrics, family practice, Ophthalmology, otolaryngology, radiology, pathology and others
Fitness – including fitness centers and health clubs
Emergency Medicine –emergency room and ambulance
Chiropractic Services
Other Specialties