Course Description

Sports Medicine is a multi-level (multi-year) program designed for students interested in fields such as athletic training, physical therapy, medicine, fitness, physiology of exercise, kinesiology, nutrition, and other sports medicine related fields. The first year includes class work and practical hands-on application in the following areas: prevention, treatment, and rehabilitation of sports injuries, taping and wrapping of injuries, first aid/CPR, emergency procedures, and sports medicine careers. The second year of program expands on the areas covered in Sports Medicine I and also covers nutrition, sports psychology, rehabilitation, therapeutic modalities, and fitness/conditioning/strength programs. The both courses offer practical experiences with local sports medicine specialists. The Sports Medicine course is designed to be taken in conjunction with the Sports Medicine Practicum (expanded practical experience). The course is open to sophomores, juniors, and seniors. The full year class can satisfy one semester (.5 credit) in science. The remaining credits can satisfy vocational requirements and/or electives.

WHS-WVC Tech Prep Program

Any student completing the Sports Medicine I or II course (with a grade “B” or better) can receive college credits for courses in the Wenatchee Valley College Sports Medicine Program. One year of Sports Medicine meets the requires for Athletic Training II (PEH 287) - 5 college credits.

Grading Scale

<table>
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<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>92-100%</td>
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<tr>
<td>A-</td>
<td>90-91%</td>
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<tr>
<td>B+</td>
<td>88-89%</td>
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<td>B</td>
<td>82-87%</td>
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<td>B-</td>
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<td>C+</td>
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<td>C</td>
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<td>C-</td>
<td>70-71%</td>
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<tr>
<td>D+</td>
<td>68-69%</td>
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<td>D</td>
<td>60-67%</td>
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Any grade below 60% will receive a failing grade.

Text and Handouts

Miscellaneous handouts from instructor
SPORTS MEDICINE I (INTRO TO SPORTS MEDICINE)

INTRODUCTION TO SPORTS MEDICINE  (4 periods)
• Identify the essential components of an effective sports medicine program.
• Identify personal characteristics of sports medicine practitioners
• Define medical terminology and abbreviations (throughout year)
• Basic injury treatment and taping procedures

ATHLETIC TREATMENT CENTER PROTOCOLS  (6)
• Describe and demonstrate Athletic Treatment Center operational protocols (record keeping, inventory, budgeting)
• Identify and describe how blood-borne pathogens are transmitted, universal precautions, and disposal of hazardous wastes and sanitation.
• Describe and demonstrate the functions and uses of various sports medicine supplies and equipment.

EMERGENCY PROCEDURES  (29)
• Demonstrate the proper procedure in providing cardiopulmonary resuscitation. (AMERICAN RED CROSS CERTIFICATION IN BOTH CPR AND FIRST AID.
• Describe and demonstrate various first aid procedures (splinting, bleeding control, etc.)
• Demonstrate the procedures in obtaining vital signs of an injured person.
• Identify the steps to take in planning for athletic emergencies.
• Demonstrate the function of the emergency equipment necessary for handling athletic emergencies.
• Describe and demonstrate the anatomical basis, specific evaluative procedures, preventive exercises/techniques, and treatment techniques for head and cervical spine injuries.
• Describe and demonstrate how to recognize and treat environmental illness (heat stroke, heat exhaustion, hypothermia).

ATHLETIC INJURIES: EVALUATION, TREATMENT, AND TAPEWRAPPING PROCEDURES (4)
• Describe how the human body reacts to injury.
• Identify the differences between acute and chronic injuries.
• Identify different types of sports injuries.
• Perform an injury evaluation using the HOPS procedure
• Describe and demonstrate basic treatment procedures for sports injuries (RICES).
• Identify the basic procedures and supplies needed for athletic taping and wrapping.
SPECIFIC SPORTS INJURIES

• Describe and demonstrate the anatomical basis, preventive exercises, specific evaluative procedures, treatment techniques, and specific taping and wrapping procedures for:

1. FOOT/ANKLE/LOWER LEG INJURIES (27)
2. KNEE/THIGH INJURIES (20)
   End of First Semester
3. TRUNK INJURIES (Hip/Spine/Rib) (10)
4. INTERNAL INJURIES (Abdominal/Thoracic) (9)
5. SHOULDER INJURIES (14)
6. ELBOW/WRIST/HAND INJURIES (11)

STATE SPORTS MEDICINE COMPETITION PREP - KPI TESTING (24)

• Review of information already presented in course (7)
• Overview of information not presented in Sports Medicine I to prepare students for competition (9)
• Final testing (oral practical and written) (8)

FIELD EXPERIENCE IN SPORTS MEDICINE (10)

• Observe procedures and assist in the following sports medicine settings:
  - Athletic training (high school, college, clinical)
  - Physical therapy (outpatient, inpatient, sports medicine)
  - Medicine (Specialties including: orthopedics, pediatrics, family practice, ophthalmology, otolarynology, radiology, pathology, and others by request)
  - Fitness (fitness centers, health clubs, etc.)
  - Emergency medicine (emergency room, ambulance)
  - Anatomy (observe autopsies by county coroner)
  - Chiropractic
  - Other specialties by request

CAREERS, PROFESSIONAL PREPARATION AND ISSUES (12)

• List and describe the various career options, including educational requirements in the sports medicine field.
• List and describe the professional organizations and associations of various sports medical professions.
• Demonstrate leadership abilities in the field of sports medicine through work with the Washington Vocational Sports Medicine Association and Wenatchee High School student government
• Demonstrate job search methods in the health care field
• Demonstrate how to write an effective resume
• Demonstrates composure and effective communication skills in a mock job interview.
• List and describe the several issues relating to various sports medicine professions and how these issues impact each profession.
• Develop a sports medicine portfolio that includes a resume, cover letter, a listing of school and sports medicine experiences, self-reflections, and other items. This may also include an electronic portfolio on CD-ROM.

SPORTS MEDICINE II (ADVANCED SPORTS MEDICINE) Year 2

THE SPORTS MEDICINE PROFESSION (5)

• History of sports medicine/athletic training
• Sports medicine related careers

ORGANIZATION/ADMINISTRATION OF SPORTS MEDICINE PROGRAMS (5)

• Identify types of liability concerns and how to prevent such occurrences
• Describe the disqualifying conditions for athletes and demonstrate the procedures of administering pre-participation physical examinations.

ADVANCED PROCEDURES IN DEALING WITH ATHLETIC EMERGENCIES (12)

• Recertify for AMC CPR and First Aid
• Review procedures and introduce advanced procedures in emergency care including vital signs, planning for emergencies/equipment, care of head/cervical spine injuries, and environmental illness.

ADVANCED PROCEDURES IN SPECIFIC SPORTS INJURIES

• Describe and demonstrate advanced procedures (more in-depth anatomical study, preventive procedures, advanced evaluative tests, refinement of taping procedures

1. FOOT/ANKLE/LOWER LEG INJURIES (13)
2. KNEE/THIGH INJURIES (10)
3. TRUNK INJURIES (Hip/Spine/Rib) (5)
4. INTERNAL INJURIES (Abdominal/Thoracic) (4)
5. SHOULDER INJURIES (6)
6. ELBOW/WRIST/HAND INJURIES (7)
FIELD EXPERIENCE IN SPORTS MEDICINE  (See 2nd semester description)  (10)

PROTECTIVE EQUIPMENT (4)

• Describe and demonstrate the proper fit, care, and usage of sports protective equipment.
• Identify types and functions of protective equipment.
• Demonstrate how to make custom protective equipment.

PHYSIOLOGY OF EXERCISE/FITNESS FOR SPORTS (9)

• Describe and demonstrate how to measure fitness with body fat testing, strength/conditioning tests, and flexibility tests.
• Describe and demonstrate the principles and procedures of strength training, flexibility, cardiovascular conditioning (aerobic/anaerobic), and proprioception.
• Demonstrate how to set up an individual on a program for injury prevention or general fitness enhancement.

End of First Semester

REHABILITATION OF INJURIES (15)

• List and describe goals and objectives of various types of rehabilitation programs and how to evaluate an athlete’s progress in a program.
• Describe and demonstrate various types of exercises and their functions in a rehabilitation program.
• Describe and demonstrate the use of range of motion, strengthening, and proprioceptive exercises in a rehabilitation program for all major areas of the body.
• Describe and demonstrate special rehabilitation techniques such as proprioceptive neuromuscular facilitation, joint mobilization, etc.
• Describe and demonstrate a functional return to play criteria.

THERAPEUTIC MODALITIES (14)

• Describe and demonstrate the physiological effects, indications/contraindications of use of the following modalities:
  1. ICE
  2. HEAT
  3. HYDROTHERAPY
  4. ELECTRICAL STIMULATION
  5. ULTRASOUND
  6. MASSAGE
  7. MISCELLANEOUS MODALITIES
SPORTS NUTRITION (10)

- List the various components of food and describe the functions of each component.
- Describe the components of a pre-event meal
- Describe and demonstrate how to safely lose or gain weight
- Describe the signs, symptoms and treatment of various eating disorders.

PHARMACOLOGY (4)

- Identify the physiological and psychological effects of performance enhancing drugs.
- List and describe the effects and side effects of anabolic steroids.
- Describe drug testing procedures.
- Identify types and functions of various prescription and over-the-counter drugs used in sports medicine.

SPORTS PSYCHOLOGY (5)

- Demonstrate various psychological methods to help athletes cope with injuries.
- Demonstrate various psychological methods to help athletes prepare for competition.

INTERNAL MEDICINE SECTION (4)

- Describe (and demonstrate when applicable) the etiology and treatment of the following conditions:

  1. Colds and influenza
  2. Allergies
  3. Common dermatological problems (fungal, bacteria, viral infections)
  4. Gastrointestinal tract problems
  5. Diabetes
  6. Anemia
  7. Exercise induced asthma
  8. A.I.D.S.
  9. The female athlete
  10. Sudden death in athletes
  11. Other miscellaneous conditions

- Describe and demonstrate medical procedures/equipment: including use of otoscope, ophthalmoscope, stethoscope (heart/lung/bowel sounds), etc.
STATE SPORTS MEDICINE COMPETITION PREP - KPI TESTING (15)

• Review of information already presented in course (7)
• Final testing (oral practical and written) (8)

FIELD EXPERIENCE IN SPORTS MEDICINE (10)

• Observe procedures and assist in the following sports medicine settings:
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ADVANCED PROFESSIONAL PREPARATION (13)

• List and describe the various career options, including educational requirements in the sports medicine field.
• List and describe the professional organizations and associations of various sports medical professions.
• Demonstrate leadership abilities in the field of sports medicine through work with the Washington Vocational Sports Medicine Association and Wenatchee High School student government
• Demonstrate job search methods in the health care field
• Update resume
• Demonstrates composure and effective communication skills in a mock job interview.
• List and describe the several issues relating to various sports medicine professions and how these issues impact each profession.
• Continue development of a sports medicine portfolio that includes a resume, cover letter, a listing of school and sports medicine experiences, self-reflections, and other items. This may also include an electronic portfolio on CD-ROM.