Prevention and Care of Athletic Injuries

I. Course Description
KINE 3318 provides the general knowledge and general application of theory, principles, and skills used in the prevention, care, and rehabilitation of athletic injuries. Materials fee required.

II. Rationale
This course will provide information on medical terminology, risk management, general medical conditions and other topics that are related to the athletic trainer/sports medicine team relationship. This course is required for students majoring in Athletic Training and accepted into the Athletic Training Education Program at Texas A&M University-Corpus Christi. This course is to be taken concurrently with KINE 2192 (Clinical experiences in Athletic Training II) for all athletic Training majors. This is a preparatory course for students seeking to be a Certified Athletic Trainer (ATC) as they plan to sit for the National Athletic Trainers’ Association Board of Certification (BOC) exam.

III. State Adopted Proficiencies for Teachers and/or Administrators/Counselors
1. LEARNER-CENTERED KNOWLEDGE: The teacher possesses and draws on a rich knowledge base of content, pedagogy, and technology to provide relevant and meaningful learning experiences for all students.
2. LEARNER-CENTERED INSTRUCTION: To create a learner-centered community, the teacher collaboratively identifies needs; and plans, implements, and assesses instruction using technology and other resources.
3. EQUITY IN EXCELLENCE FOR ALL LEARNERS: The teacher responds appropriately to diverse groups of learners.
4. LEARNER-CENTERED COMMUNICATION: While acting as an advocate for all students and the school, the teacher demonstrates effective professional and interpersonal communication skills.
5. LEARNER-CENTERED PROFESSIONAL DEVELOPMENT: The teacher, as a reflective practitioner dedicated to all students’ success, demonstrates a commitment to learn, to improve the profession, and to maintain ethics and personal integrity.

IV. TExES Competencies
a. TExES COMPETENCIES:
Domain II – HEALTH-RELATED PHYSICAL FITNESS
Competency 008 – The teacher understands principles and activities for developing and maintain flexibility, posture, and muscular strength and endurance.
Domain III – THE PHYSICAL EDUCATION PROGRAM
Competency 013 – The teacher understands legal issues and responsibilities of physical education teachers in relation to supervision, planning and instruction, safety, first aid, and risk management.
b. NATIONAL COMPETENCIES & PROFICIENCIES FOR ATHLETIC TRAINING (CAATE 4th Ed.)

RISK MANAGEMENT:

Competency Code: Description:
▫ RM-C1: Explain the risk factors associated with physical activity.
▫ RM-C2: Identify and explain the risk factors associated with common congenital and acquired abnormalities, disabilities, and diseases.
▫ RM-C17: Explain the principles and concepts related to prophylactic taping, wrapping, bracing, and protective pad fabrication
▫ RM-C18: Explain the principles and concepts related to the fabrication, modification, and appropriate application or use of orthotics and other dynamic and static splints. This includes, but is not limited to, evaluating or identifying the need, selecting the appropriate manufacturing material, manufacturing the orthosis or splint, and fitting the orthosis or splint.

Proficiencies taught and evaluated:
▫ RM-P5: Select, fabricate, and apply appropriate preventive taping and wrapping procedures, splints, braces, and other special protective devices. Procedures and devices should be consistent with sound anatomical and biomechanical principles.

PATHOLOGY:

Proficiencies taught:
▫ PA-C5: Describe the etiology, pathogenesis, pathomechanics, signs, symptoms, and epidemiology of common orthopedic injuries, illnesses and diseases to the body’s systems.

MEDICAL CONDITIONS:

Competencies taught and evaluated:
▫ MC-C7: Describe and know when to refer common and significant respiratory infections, thoracic trauma, and lung disorders. (e.g., influenza, pneumonia, bronchitis, rhinitis, sinusitis, upper-respiratory infection (URI), pneumothorax, hemoptoax, pneumomediastinum, exercise-induced bronchospasm, exercise-induced anaphylaxis, asthma).
▫ MC-C10: Explain the possible causes of sudden death syndrome.
▫ MC-C11: Describe and know when to refer common cardiovascular and hematological medical conditions from trauma, deformity, acquired disease, conduction disorder, and drug abuse (e.g., coronary artery disease, hypertrophic cardiomyopathy, heart murmur, mitral valve prolapse, commotion cordis, Marfan’s syndrome, peripheral embolism, hypertension, arrhythmicogenic right ventricular dysplasia, Wolf-Parkinson-White syndrome, anemias, sickle cell anemia and sickle cell trait [including rhabdomyolysis], hemophilia, deep vein thrombosis, migraine headache, syncope).
▫ MC-C12: Describe and know when to refer common medical conditions that affect the gastrointestinal and hepatic-biliary systems from trauma, chemical and drug irritation, local and systemic infections, psychological stress, and anatomic defects (e.g., hepatitis, pancreatitis, dyspepsia, gastroesophageal reflux, peptic ulcer, gastritis and gastroenteritis, inflammatory bowel disease, irritable bowel syndrome, appendicitis, sports hernia, hemorrhoids, splenomegaly, liver trauma).
▫ MC-C13: Describe and know when to refer common medical conditions of the endocrine and metabolic systems from acquired disease and acute and chronic nutritional disorders (e.g., diabetes mellitus and insipidus, hypothyroidism, Cushing’s syndrome, thermoregulatory disorders, gout, osteoporosis).
▫ MC-C16: Describe and know when to refer common medical conditions of the immune system from infection, congenital and acquired disease, and unhealthy lifestyle. (e.g., arthritis, gout, upper respiratory tract infection [URTI], influenza, pneumonia, myocarditis, gastrointestinal
infection, urinary tract infection (UTI), sexually transmitted diseases (STDs), pelvic inflammatory disease, meningitis, osteomyelitis, septic arthritis, chronic fatigue and overtraining, infectious mononucleosis, human immunodeficiency virus (HIV) infection and AIDS, hepatitis B virus infection, allergic reaction and anaphylaxis, childhood infectious diseases (measles, mumps, chickenpox)).

- **MC-C14**: Describe and know when to refer common medical conditions of the renal and urogenital systems from trauma, local infection, congenital and acquired disease, nutritional imbalance, and hormone disorder (e.g., kidney stones, genital trauma, gynecomastia, monorchidism, scrotum and testicular trauma, ovarian and testicular cancer, breast cancer, testicular torsion, varicoceles, endometriosis, pregnancy and ectopic pregnancy, female athlete triad, primary amenorrhea, oligomenorrhea, dysmenorrhea, kidney laceration or contusion, cryptorchidism).

- **MC-C15**: Describe and know when to refer common and/or contagious skin lesions from trauma, infection, stress, drug reaction, and immune responses (e.g., wounds, bacteria lesions, fungal lesions, viral lesions, bites, acne, eczema dermatitis, ringworm).

**ACUTE CARE:**

- **Competencies taught and evaluated:**
  - AC-C4: Know and be able to use appropriately standard nomenclature of injuries and illnesses.
  - AC-C8: Describe pathological signs of acute/traumatic injury and illness including, but not limited to, skin temperature, skin color, skin moisture, pupil reaction, and neurovascular function.
  - AC-C18: Describe the signs, symptoms, and pathology of acute inflammation.
  - AC-C27e: Allergic, thermal, and chemical reactions of the skin (including infestations and insect bites)
  - AC-C28: Identify the signs and symptoms of serious communicable diseases and describe the appropriate steps to prevent disease transmission.
  - AC-C30: Identify information obtained during the examination to determine when to refer an injury or illness for further or immediate medical attention.
  - AC-C33: Describe home care and self-treatment plans of acute injuries and illnesses.

**Proficiencies taught:**

- AC-P4j: Diabetic coma

**PSYCHOSOCIAL:**

- **Competencies taught and evaluated:**
  - PS-C1: Explain the psychosocial requirements (i.e., motivation and self-confidence) of various activities that relate to the readiness of the injured or ill individual to resume participation.
  - PS-C2: Explain the stress-response model and the psychological and emotional responses to trauma and forced inactivity.
  - PS-C4: Describe the basic principles of mental preparation, relaxation, visualization, and desensitization techniques.
  - PS-C13: Describe the acceptance and grieving processes that follow a catastrophic event and the need for a psychological intervention and referral plan for all parties affected by the event.

**EXERCISE:**

- **Competencies taught:**
  - EX-C8: Explain the effectiveness of taping, wrapping, bracing, and other supportive/protective methods for facilitation of safe progression to advanced therapeutic exercises and functional activities.
V. Course Objectives/Learning Outcomes
- Build foundations of injury care and administer protective taping and wrapping
- Recognize and understand the basic process of
  ▫ Injury Assessment
  ▫ Tissue Healing and Wound Care
  ▫ Developing a Therapeutic Exercise program
  ▫ Developing Muscular strength, endurance and Power
  ▫ Return to Sport/ Physical Activity
    - Recognize, assess, manage and prevent
  ▫ Head and Facial Conditions
  ▫ Cervical and Thoracic Spinal Conditions
  ▫ Lumbar Spinal Conditions
  ▫ Throat, Thorax and Visceral Conditions
  ▫ Shoulder Conditions
  ▫ Upper Arm, Elbow, and Forearm Conditions
  ▫ Wrist and Hand Conditions
  ▫ Pelvic, Hip and Thigh Conditions
  ▫ Knee Conditions
  ▫ Lower Leg, Ankle, and Foot Conditions
  ▫ Shock, Syncopy, and Diabetic Emergency
  ▫ Conditions of the Female, Disabled and Senior Athlete
  ▫ Common Infectious Diseases & Dermatology

VI. Course Topics
The major topics to be considered are:
The major topics to be considered are prevention, care, and rehabilitation of athletic injuries. Other topics include protective and preventative taping and bracing, blood borne pathogens, and performance enhancing drugs.

VII. Instructional Methods and Activities
Methods and activities for instruction include:
A. Traditional Experiences 85% (lecture/discussion; demonstration; drill; guest speaker; video, etc)
B. Clinical Experiences 15% (lab exercise)

VIII. Evaluation and Grade Assignment
A. Methods and Percentage of Final Course Grade Each Assessment Constitutes
  1. Traditional Assessment
    Exams (100 pts apiece, x 5) = 500 points
    Lab (50 pts apiece, x 2) = 100 points
    Quiz/Guest Speakers (10 pts apiece, x 10) = 100 points
    Total Possible = 700 points

Grading Scale:
  90-100% = A
  80-89% = B
  70-79% = C
  60-69% = D
  Below 60% = F
### IX. Course Schedule and Policies

#### A. Tentative Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Associated Reading</th>
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<tbody>
<tr>
<td>23-Jan</td>
<td>Syllabus and Introduction</td>
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<tr>
<td>25-Jan</td>
<td>Tissue Healing and Wound Care</td>
<td>Ch. 6</td>
</tr>
<tr>
<td>28-Jan</td>
<td>Tissue Healing and Wound Care</td>
<td>Ch. 6</td>
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<tr>
<td>30-Jan</td>
<td>Tissue Healing and Wound Care</td>
<td>Ch. 6</td>
</tr>
<tr>
<td>1-Feb</td>
<td>Therapeutic Interventions</td>
<td>Ch. 7, 8, 27</td>
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<tr>
<td>4-Feb</td>
<td>Therapeutic Interventions</td>
<td>Ch. 7, 8, 27</td>
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<tr>
<td>6-Feb</td>
<td>Therapeutic Interventions</td>
<td>Ch. 7, 8, 27</td>
</tr>
<tr>
<td>8-Feb</td>
<td>EXAM #1</td>
<td>Ch. 6 &amp; 8</td>
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<tr>
<td>11-Feb</td>
<td>Head and Facial Conditions</td>
<td>Ch. 9</td>
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<tr>
<td>13-Feb</td>
<td>Head and Facial Conditions</td>
<td>Ch. 9</td>
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<tr>
<td>15-Feb</td>
<td>Head and Facial Conditions</td>
<td>Ch. 9</td>
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<tr>
<td>18-Feb</td>
<td>Cervical and Thoracic Spinal Conditions</td>
<td>Ch. 10</td>
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<td>20-Feb</td>
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<td>Ch. 10</td>
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<tr>
<td>22-Feb</td>
<td>Lumbar Spinal Conditions</td>
<td>Ch. 11</td>
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<td>25-Feb</td>
<td>Lumbar Spinal Conditions</td>
<td>Ch. 11</td>
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<tr>
<td>27-Feb</td>
<td>Throat, Thorax, and Visceral Conditions</td>
<td>Ch. 12</td>
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<tr>
<td>1-Mar</td>
<td>Throat, Thorax, and Visceral Conditions</td>
<td>Ch. 12</td>
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<tr>
<td>4-Mar</td>
<td>EXAM #2</td>
<td>Ch. 9-12</td>
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<td>6-Mar</td>
<td>Shoulder Conditions</td>
<td>Ch. 13</td>
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<td>8-Mar</td>
<td>Shoulder Conditions</td>
<td>Ch. 13</td>
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<tr>
<td>11-Mar</td>
<td>Spring Break – No Class</td>
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<tr>
<td>13-Mar</td>
<td>Spring Break – No Class</td>
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<td>15-Mar</td>
<td>Spring Break – No Class</td>
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<tr>
<td>18-Mar</td>
<td>Shoulder Conditions</td>
<td>Ch. 13</td>
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<tr>
<td>20-Mar</td>
<td>Upper Arm, Elbow, and Forearm Conditions</td>
<td>Ch. 14</td>
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<tr>
<td>22-Mar</td>
<td>Wrist and Hand Conditions</td>
<td>Ch. 15</td>
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<tr>
<td>25-Mar</td>
<td>Wrist and Hand Conditions</td>
<td>Ch. 15</td>
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<tr>
<td>27-Mar</td>
<td><strong>Lab 1:</strong> Protective Taping and Wrapping – Upper Extremities</td>
<td>Ch 4, 13-15</td>
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<td>29-Mar</td>
<td>EXAM #3</td>
<td>Ch. 4, 13-15</td>
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<td>1-Apr</td>
<td>Spring Break – No Class</td>
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<td>3-Apr</td>
<td>Spring Break – No Class</td>
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<td>5-Apr</td>
<td>Spring Break – No Class</td>
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<tr>
<td>8-Apr</td>
<td>Pelvic, Hip, and Thigh Conditions</td>
<td>Ch. 16</td>
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<td>10-Apr</td>
<td>Pelvic, Hip, and Thigh Conditions</td>
<td>Ch. 16</td>
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<tr>
<td>12-Apr</td>
<td>Knee Conditions</td>
<td>Ch. 17</td>
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<tr>
<td>15-Apr</td>
<td>Knee Conditions</td>
<td>Ch. 17</td>
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<tr>
<td>17-Apr</td>
<td>Knee Conditions</td>
<td>Ch. 17</td>
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<tr>
<td>19-Apr</td>
<td>Lower Leg, Ankle, and Foot Conditions</td>
<td>Ch. 18</td>
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<tr>
<td>22-Apr</td>
<td>Lower Leg, Ankle, and Foot Conditions</td>
<td>Ch. 18</td>
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**B. Class Policies**

**Exams**
Exams must be taken in class during the scheduled class session. **No make-up exams will be given except under extreme circumstances.** If you are late to an exam you will not be given extra time to take it.

**Guest Speakers**
This is an opportunity to gain valuable insight and information from other professionals in the field. Ten **(10) Points** will be earned for completion of notes or a short documentary on each speaker. No make-ups are allowed.

**Quiz/Lab**
Points will be earned based on performance from a quiz or lab. All work must be completed during the scheduled class period. If you are late to a quiz or a lab, you will not be given extra time to take it. No make-ups are allowed.

**Class Participation and Attendance**
Active participation and attendance are extremely important, however situations do occur. Please understand that I will work with any individual that may have a conflict regarding test or lab. Obviously those individuals that approach me prior to the date in question will have a more favorable outcome.

**Academic Integrity/Plagiarism.**
As per the university catalog, “university students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, forgery, or plagiarism. (Plagiarism is the presentation of the work of another as one’s own). Penalties that may be applied to individual cases of academic dishonesty include one or more of the following:

1. Written reprimand.
2. Requirement to re-do work in question.
3. Requirement to submit additional work.
4. Lowering of grade on work in question;
5. Assigning grade of ‘F’ to work in question;
6. Assigning grade of ‘F’ for course;
7. Recommendation for more severe punishment

Dropping a Class
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. April 12, 2013 is the last day to drop a class with an automatic grade of “W” this term.

X. Textbook(s)
The textbook(s) adopted for this course is/are:

XI. Bibliography
The knowledge bases that support course content and procedures include:

XII. Grade Appeals
As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

XIII. Disabilities Accommodations
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.