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
(CAAATE 5th Ed.)

Prevention and Health Promotion (PHP)

PHP-1. Describe the concepts (eg, case definitions, incidence versus prevalence, exposure assessment, rates) and uses of injury and illness surveillance relevant to athletic training.

PHP-2. Identify and describe measures used to monitor injury prevention strategies (eg, injury rates and risks, relative risks, odds ratios, risk differences, numbers needed to treat/harm).

PHP-3. Identify modifiable/non-modifiable risk factors and mechanisms for injury and illness.

PHP-4. Explain how the effectiveness of a prevention strategy can be assessed using clinical outcomes, surveillance, or evaluation data.

PHP-5. Explain the precautions and risk factors associated with physical activity in persons with common congenital and acquired abnormalities, disabilities, and diseases.

PHP-6. Summarize the epidemiology data related to the risk of injury and illness associated with participation in physical activity.

PHP-17. Explain the etiology and prevention guidelines associated with the leading causes of sudden death during physical activity, including but not limited to:
   PHP-17a. Cardiac arrhythmia or arrest
   PHP-17b. Asthma
   PHP-17c. Traumatic brain injury
   PHP-17d. Exertional heat stroke
   PHP-17e. Hyponatremia
   PHP-17f. Exertional sickling
   PHP-17g. Anaphylactic shock
   PHP-17h. Cervical spine injury
   PHP-17i. Lightning strike

PHP-19. Instruct clients/patients in the basic principles of ergodynamics and their relationship to the prevention of illness and injury.

PHP-23. Apply preventive taping and wrapping procedures, splints, braces, and other special protective devices.

PHP-24. Summarize the general principles of health maintenance and personal hygiene, including skin care, dental hygiene, sanitation, immunizations, avoidance of infectious and contagious diseases, diet, rest, exercise, and weight control.

PHP-46. Identify and describe the signs, symptoms, physiological, and psychological responses of clients/patients with disordered eating or eating disorders.

PHP-47. Describe the method of appropriate management and referral for clients/patients with disordered eating or eating disorders in a manner consistent with current practice guidelines.

Clinical Examination and Diagnosis (CE)
   a. Musculoskeletal
b. Integumentary
c. Neurological
e. Endocrine
f. Pulmonary
g. Gastrointestinal
h. Hepatobiliary
i. Immune
j. Renal and urogenital
k. The face, including maxillofacial region and mouth
l. Eye, ear, nose, and throat

CE-1. Describe the normal structures and interrelated functions of the body systems.

CE-2. Describe the normal anatomical, systemic, and physiological changes associated with the lifespan.

CE-3. Identify the common congenital and acquired risk factors and causes of musculoskeletal injuries and common illnesses that may influence physical activity in pediatric, adolescent, adult, and aging populations.

CE-4. Describe the principles and concepts of body movement, including normal osteokinematics and arthrokinematics.

CE-5. Describe the influence of pathomechanics on function.

CE-6. Describe the basic principles of diagnostic imaging and testing and their role in the diagnostic process.

Acute Care of Injuries and Illnesses (AC)

AC-36. Identify the signs, symptoms, interventions and, when appropriate, the return-to-participation criteria for:

AC-36a. sudden cardiac arrest
AC-36b. brain injury including concussion, subdural and epidural hematomas, second impact syndrome and skull fracture
AC-36c. cervical, thoracic, and lumbar spine trauma
AC-36g. internal hemorrhage
AC-36h. diabetic emergencies including hypoglycemia and ketoacidosis
AC-36i. asthma attacks
AC-36j. systemic allergic reaction, including anaphylactic shock
AC-36l. shock
AC-36o. local allergic reaction.

AC-37. Select and apply appropriate splinting material to stabilize an injured body area.

Psychosocial Strategies and Referral (PS)

PS-1. Describe the basic principles of personality traits, trait anxiety, locus of control, intrinsic and extrinsic motivation, and patient and social environment interactions as they affect patient interactions.

PS-2. Explain the theoretical background of psychological and emotional responses to injury and forced inactivity (eg, cognitive appraisal model, stress response model).
PS-3. Describe how psychosocial considerations affect clinical decision-making related to return to activity or participation (e.g., motivation, confidence).

PS-4. Summarize and demonstrate the basic processes of effective interpersonal and cross-cultural communication as it relates to interactions with patients and others involved in the healthcare of the patient.

PS-5. Summarize contemporary theory regarding educating patients of all ages and cultural backgrounds to effect behavioral change.

PS-6. Explain the importance of educating patients, parents/guardians, and others regarding the condition in order to enhance the psychological and emotional well-being of the patient.

PS-10. Explain the impact of sociocultural issues that influence the nature and quality of healthcare received (e.g., cultural competence, access to appropriate healthcare providers, uninsured/underinsured patients, insurance) and formulate and implement strategies to maximize client/patient outcomes.

PS-14. Describe the psychological and sociocultural factors associated with common eating disorders

V. Course Objectives/Learning Outcomes

- Build foundations of injury care and administer protective taping and wrapping
- Recognize and understand the basic process of
  - Cranial Nerves
  - Neurological Conditions
  - Cardiorespiratory Conditions
  - 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
  - Psychological and psychosocial considerations
  - Ergonomics
  - the Athletic Training Profession and the 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 77% (lecture/discussion; demonstration; drill; guest speaker; video, etc)
B. Clinical Experiences 23% (lab exercise)

VIII. Evaluation and Grade Assignment

A. Methods and Percentage of Final Course Grade Each Assessment Constitutes

1. Traditional Assessment
   Exams and Cumulative Final Exam 5 exams @ 100pts each = \(500\) points
   Labs 3 labs @ 10pts each = \(30\) points (Subject to change)
   Syllabus Quizz 1 quiz @ 5pts = 5 points (due by 01/28/13)
   Pre-Lab Quizzes 17 quizzes @ 5pts each = 85 points
   Guest Lecture write up= 2 lectures @ 15pts each = 30 points
   Discussion board 1 board @ 10Pts= 10 points

Total Possible = 660 points (Subject to change)

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>01/23</td>
<td>Syllabus and Introduction to Sports Medicine</td>
<td>Chpt 1</td>
</tr>
<tr>
<td>01/28</td>
<td>Vernacular, Legality, and the Sports Medicine Team</td>
<td>Chpt 6</td>
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<tr>
<td>01/30</td>
<td>Tissue Healing, Wound Care, and OSHA</td>
<td>Chpt 6, Chpt 8</td>
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<tr>
<td>02/04</td>
<td>Therapeutic and psychosocial Interventions</td>
<td>Chpt 8</td>
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<tr>
<td>02/06</td>
<td>Exam #1</td>
<td>Chpts 1, 6, 8 and Associated Materials</td>
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<tr>
<td>02/11</td>
<td>Head and Facial Condition</td>
<td>Chpt 10</td>
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<tr>
<td>02/13</td>
<td>Concussions and Neurologic Disorders</td>
<td>Chpt 21</td>
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<tr>
<td>02/18</td>
<td>Cardiovascular and Respiratory Conditions</td>
<td>Chpt 20, 22</td>
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<tr>
<td>02/20</td>
<td>Dr. García’s Lecture</td>
<td>Supplementary</td>
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<tr>
<td>02/25</td>
<td>Throat, Thorax, and Visceral Conditions</td>
<td>Chpt 13</td>
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<tr>
<td>02/27</td>
<td>Exam #2</td>
<td>Chpts 10, 13, 20, 21, 22, and Associated Materials</td>
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<tr>
<td>03/04</td>
<td>Cervical, Thoracic, and Lumbar Spine Conditions</td>
<td>Chpt 11, Chpt 12</td>
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<tr>
<td>03/06</td>
<td>Pelvic, Sacral, and Hip Conditions</td>
<td>Chpt 17</td>
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<tr>
<td>03/11</td>
<td>Happy Spring Break</td>
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<tr>
<td>03/13</td>
<td>Happy Spring Break</td>
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<tr>
<td>03/18</td>
<td>Knee Conditions</td>
<td>Chpt 18</td>
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<tr>
<td>03/20</td>
<td>Lower Leg, Ankle, and Foot Conditions</td>
<td>Chpt 19</td>
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<tr>
<td>03/25</td>
<td>Lab #1: Taping and Wrapping of the Lower Extremities</td>
<td>Supplementary</td>
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<tr>
<td>03/27</td>
<td>Exam #3</td>
<td>Chpts 11, 12, 17, 18, 19, and Associated Materials</td>
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<tr>
<td>04/01</td>
<td>Shoulder Conditions</td>
<td>Chpt 14</td>
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<tr>
<td>04/03</td>
<td>Upper Arm, Elbow, and Forearm Conditions</td>
<td>Chpt 15</td>
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<tr>
<td>04/08</td>
<td>Wrist and Hand Conditions</td>
<td>Chpt 16</td>
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<tr>
<td>04/10</td>
<td>Lab #2: Taping and Wrapping of the Upper Extremities</td>
<td>Supplementary</td>
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<tr>
<td>04/15</td>
<td>Dr. Tower’s Lecture-Looking at the Body as a Whole</td>
<td>Supplementary</td>
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<tr>
<td>04/17</td>
<td>Lab #3: Postural Assessment and Gate Analysis</td>
<td>Supplementary</td>
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<tr>
<td>04/22</td>
<td>Exam #4</td>
<td>Cht 14, 15, 16, and Associated Materials</td>
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<td>04/24</td>
<td>Shock, Syncope, Environmental Conditions, &amp; Diabetic Emergency</td>
<td>Chpts 24, 25</td>
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<td>04/28</td>
<td>Conditions of the Female Athlete and Special Populations</td>
<td>Chpt 27</td>
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<tr>
<td>04/01</td>
<td>Common Infectious Diseases &amp; Dermatology</td>
<td>Chpts 26, 29</td>
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<tr>
<td>04/06</td>
<td>Final Exam Review Jeopardy</td>
<td>All</td>
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<tr>
<td><strong>TBD</strong></td>
<td><strong>Cumulative Final Exam</strong></td>
<td><strong>CUMULATIVE</strong></td>
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*The instructor reserves the right to change the schedule. Any changes in test dates will be announced in class at least one class prior to the tentative exam date.*
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. **10 Points** will be earned for completion of a one page paper on the speaker. No make-ups are allowed.

**Pre-class Quiz**
At the beginning of every class period there will be a pre-class quiz worth 5 points total. Questions may be based off of either information learned in the previous class sessions, or information that can be found in the required reading for the current class session. If you do not read the associated reading in a timely manner it will be very difficult to earn all points possible for the quizzes. These quizzes will only be available for the **first five minutes** of each class period. If you enter class more than five minutes after the class period begins you will not be eligible to take the pre-class quiz. Pre-class quizzes may only be made up in the event of an excused absence.

**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.

**Evidence Based Practice Papers**
Two Evidence Based Practice papers will be due during the semester. Your task is to pick a subject previously covered in class, use the University online research guide ([http://tamucc.libguides.com/content.php?pid=212091&sid=1765598](http://tamucc.libguides.com/content.php?pid=212091&sid=1765598)) and find a peer reviewed article that interest you on that subject. You will need to summarize the article along with critically reviewing the article (AKA, did you think the research was done well, why or why not?)
Each paper must be a minimum of 2 pages, double spaced, with 1” margins. **You must turn in both the paper and a copy of the journal article. Be VERY AWARE of wording and phraseology, sometimes we unintentionally plagiarize, if you state an idea you must properly site it!**

**Attendance, Excused Absences, and Make Up Work/Tests**-
Attendance in class is not calculated into your grade, but it is necessary for your education, however strictly consuming oxygen does not qualify as attendance, be prepared to take a pre-lab quiz and answer questions when called upon. Tests and homework will only be permitted to be made up in the event of an excused absence. In order for an absence to be classified as excused one of several criteria must be met;

1. For homework- your instructor must be informed by email **prior** to the beginning of the class period.
2. For a test- your instructor must be informed by email at least 24 hours prior to the class period in which the test will be taken. **In the case of a missed test due to an excused absence it is the responsibility of the student to make an appointment with the professor to make up the missed test, within one week of the missed exam.**
3. Note from a physician stating that you missed class for a medical issue including date and time of class missed.
**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**

Dropping a class is sometimes an unfortunate necessity. HOWEVER I urge you to check with me before making the decision to drop the class, so that we can take a thorough look at your current class grade to be sure that you are aware of exactly where you stand in the class. Should dropping the class be the best possible course of action you must go to the Student Services Center and fill out a course drop form. **Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. April 11, 2014** 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 Rule13.02.99.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](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.

-Note-
Extra credit is an opportunity NOT a requirement, so do not rely on it to boost your grade at the end of the semester. No extra credit opportunities will be given to any individual student, IF any extra credit opportunities arise all students will be informed of the opportunity.