Texas A&M University – Corpus Christi College of Education
KINE 3318 Prevention and Care of Athletic Injuries
Course Syllabus

KINE 3318-001  Instructor: Jerry Hilker
Classroom: IH 156  Office: Island Hall 179f
Class Period: 10:00am to 11:55am  Office hours: 1:00-2:00pm M-R
Semester: Summer Session II  Email: jerry.hilker@tamucc.edu
Office Phone: 825-2035

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 (NATABOC) exam.

III. STATE ADOPTED PROFICIENCIES FOR TEACHERS AND/OR ADMINISTRATORS/COUNSELORS:

A. 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.

B. 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.

C. EQUITY IN EXCELLENCE FOR ALL LEARNERS: The teacher responds appropriately to diverse groups of learners.

D. LEARNER-CENTERED COMMUNICATION: While acting as an advocate for all students and the school, the teacher demonstrates effective professional and interpersonal communication skills.

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. TEExES COMPETENCIES AND CAATE COMPETENCIES:

There are no TEExES competencies taught in this course. However, the following list of Competencies and Proficiencies from the Commission on Accreditation of Athletic Training Education (CAATE) 4th edition that are taught in this course:

b. NATIONAL COMPETENCIES & PROFICIENCIES FOR ATHLETIC TRAINING (CAATE 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 (eg, 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 (eg, 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:
Given lectures, discussions, videos and/or field experiences the student will be able to:

Tissue response to injury:
- Contrast the 3 phases of the healing process
- Classify the physiological events that take place during each phase of the healing process
- Identify those factors that may impede the healing process
- Describe the healing process as it occurs in bone
- Understand the management plan for treating acute fractures
- Define pain and discuss the various types of pain
- Examine the various techniques for assessing pain

Foot, Ankle, & Lower leg:
- Identify the major anatomical and functional features of the foot, ankle and lower leg
- Discuss how foot, ankle and lower leg injuries may be prevented
- Explain the process for evaluation injuries to the foot, ankle and lower leg
- Identify specific injuries that occur in the foot, ankle and lower leg
- Discuss the etiology, symptoms and signs and management of injuries occurring in the foot, ankle and lower leg

Knee, Thigh, Hip, Groin and Pelvis:
- Identify the major anatomical and functional features of the knee, thigh, hip, groin and pelvis
- Compare and contrast the male/female differences relative to the anterior cruciate ligament (ACL)
- Discuss the etiology, symptoms and signs and management of ligaments and meniscus structures in the knee
Identify the various etiological factors, symptoms and signs, and management procedures for injuries that occur in the patellofemoral joint
Discuss the etiological factors, symptoms and signs, and management procedures for the injuries that occur in the pelvis, hip and groin.
Shoulder, Elbow, Forearm, Wrist, Hand, and Fingers:
- Identify anatomical features unique to the shoulder complex, elbow, forearm, wrist, hand and fingers
- Recognize the steps that can be taken to minimize the chances of injury to the shoulder complex, elbow, forearm, wrist, hand and fingers
- Explain how shoulder stability is maintained by the joint capsule, ligaments, and muscles
- Identify the etiology and recognize the symptoms and signs of specific injuries that occur around the shoulder, elbow, forearm, wrist, hand, and fingers
- Explain the unique injuries that occur in the shoulder, elbow, forearm, wrist, hand and fingers

Spine, Thorax and Abdomen:
- Describe the anatomy of the cervical, thoracic, and lumbar spine
- Understand how the nerve roots from the spinal cord combine to form specific peripheral nerves
- Point out measures to prevent injury to the spine
- Categorize specific injuries that can occur to the various regions of the spine in terms of the etiology, symptoms and signs, and management
- Understand the anatomy of the thorax and abdomen
- Identify the function of the heart and lungs
- Be familiar with the location and function of the abdominal viscera related to the urinary system, digestive system, reproductive system and lymphatic system
- Recognize various injuries to the structures of the thorax

Head & Facial Injuries:
- Be able to correctly identify the various injuries that can occur to the face, eyes, ears, nose, and throat
- Discuss the value of neuropsychological tests in determining the state of recovery following concussion
- Review anatomy of the head and facial structures
- Recognize the seriousness of a variety of injuries to the head and be aware of the length of time potentially needed for recovery

VI. COURSE TOPICS
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
The course may include lecture/discussions, demonstrations, and clinical education (hands-on application) in the Athletic Training Center (IH 179).

VIII. EVALUATION AND GRADE ASSIGNMENT
Your grade in this class will be determined from a point percentage. The grading scale is as follows:

- Exams (3) = 300 points
- Quiz (4) = 200 points
- Lab (4) = 100 points
- Final Exam = 100 points
- Total Possible = 700 points
Percentage: Points:
90-100% = A 630 – 700 = A
80-89% = B 560 – 623 = B
70-79% = C 490 – 553 = C
60-69% = D 420 – 483 = D
Below 60% = F

EXAMS: Exams must be taken in class during the scheduled class session. Make-up exams will only be allowed if the student was ill and has a physicians note stating such.
Examination material is taken from the class text book, notes and lecture.

QUIZ/LAB: Points will be earned based on performance from a quiz or lab. All work must be completed during the scheduled class period. No make-ups are allowed.

ATTENDANCE: Attendance is mandatory 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 HONESTY
As per the university catalog, "university students are expected to conduct themselves in accordance with the highest standard 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." (Texas A&M University-Corpus Christi, 2005)

IX. COURSE SCHEDULE AND POLICIES

A. “Tentative Course Schedule”

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>M 7-7</td>
<td>Introduction &amp; Syllabus / Introduce Tissue Response to Injury</td>
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<tr>
<td>T 7-8</td>
<td>Ch. 6, 25 &amp; 26 Tissue Response to Injury/ Common Infectious Diseases/ Conditions of the female athlete</td>
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<tr>
<td>W 7-9</td>
<td>Ch.18: Foot, Ankle, and Lower leg</td>
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<tr>
<td>R 7-10</td>
<td>Lab #1</td>
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<tr>
<td>M 7-14</td>
<td>Quiz #1</td>
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<td>T 7-15</td>
<td>Exam #1 (on line) Ch. 17/ 16: Knee, Thigh, Hip, Groin and Pelvis</td>
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<td>W 7-16</td>
<td>Lecture continued</td>
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<td>R 7-17</td>
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<td>F 7-18</td>
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<td>M 7-21</td>
<td>Lab#2</td>
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<td>T 7-22</td>
<td>Quiz #2</td>
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<tr>
<td>W 7-23</td>
<td>Exam #2 (on line)</td>
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<td>R 7-24</td>
<td>Ch. 13/ 14/ 15: Shoulder, Elbow, Wrist, Hand &amp; Fingers</td>
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</table>
Lecture continued

Lab #3

Quiz #3

Exam #3 (on line)

Ch. 10/11/12: Lecture: Spine, Thorax, Abdomen

Lab #4

Quiz #4

FINAL (EXAM #4) (on line)

*Please note that I will be attending the Southwest Athletic Trainers Association meeting on Thursday July 17th-20th.

The instructor reserves the right to change the schedule to cover all subjects thoroughly. It is very likely that the SCHEDULE WILL CHANGE. Information presented in class may come from a source other than the textbook. If you miss a class you will need to obtain that material from a classmate. It is your responsibility! No make up tests will be given except under extreme circumstances. A physician’s note is necessary if you are ill. If you cannot reach me please contact the office of Student Affairs for assistance. 361-825-2612 or Visit at University Center, room 318.

Other Information:
Tutoring & Learning Center 361-825-5933
Call TALK2ME 825-5263
Student Affairs 825-612
University Counseling Center 825-2703

X. TEXTBOOKS: The text books adopted for this course are:

XI. BIBLIOGRAPHY:


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
For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

XIII. DISABILITIES ACCOMODATIONS

Americans with Disabilities Act (ADA) - The 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 disability. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall Room 116.

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.