I. Course Description
KINE 3324 provides the student with general knowledge of evaluation techniques of athletic injuries to the lower extremities including range of motion testing, neurologic and orthopedic evaluations. Prerequisite: KINE 2325, KINE 3318, or BIOL 2401. 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 3192 (Clinical experiences in Athletic Training IV) 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
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 (if applicable)
   a. TExES COMPETENCIES
      N/A
   b. NATIONAL COMPETENCIES & PROFICIENCIES FOR ATHLETIC TRAINING
      (CAATE 4th Ed.)
      PATHOLOGY:
      Competency Code: Description:
      • PA-C5: Describe the etiology, pathogenesis, pathomechanics, signs, symptoms, and epidemiology of common orthopedic injuries, illnesses and diseases to the body’s systems.

DIAGNOSIS:
DI-C6: Describe common techniques and procedures for evaluating common injuries including taking a history, inspection/observation, palpation, functional testing, special evaluation techniques, and neurological and circulatory tests.

DI-C7: Explain the relationship of injury assessment to the systematic observation of the person as a whole.

DI-C8: Describe the nature of diagnostic tests of the neurological function of cranial nerves, spinal nerves, and peripheral nerves using myotomes, dermatomes, and reflexes.

DI-C9: Assess neurological status, including cranial nerve function, myotomes, dermatomes and reflexes, and circulatory status.

DI-C10: Explain the roles of special tests in injury assessment.

DI-C11: Explain the role of postural examination in injury assessment including gait analysis.

DI-C12: Describe strength assessment using resistive range of motion, break tests, and manual muscle testing.

DI-C13: Describe the use of diagnostic tests and imaging techniques based on their applicability in the assessment of an injury when prescribed by a physician.

DI-C15: Describe and identify postural deformities.

DI-C16: Explain medical terminology and abbreviations necessary to communicate with physicians and other health professionals.

DI-C17: Describe the components of medical documentation (e.g. SOAP, HIPS and HOPS).

Proficiencies instructed:

DI-P1: Obtain a medical history of the patient that includes a previous history and a history of the present injury.

DI-P2: Perform inspection/observation of the clinical signs associated with common injuries including deformity, posturing and guarding, edema/swelling, hemarthrosis, and discoloration.

DI-P3: Perform inspection/observation of postural, structural, and biomechanical abnormalities.

DI-P4: Palpate the bones and soft tissues to determine normal or pathological characteristics.

DI-P5: Measure the active and passive joint range of motion using commonly accepted techniques, including the use of a goniometer and inclinometer.

DI-P6: Grade the resisted joint range of motion/manual muscle testing and break tests.

DI-P7: Apply appropriate stress tests for ligamentous or capsular stability, soft tissue and muscle, and fractures.

DI-P8: Apply appropriate special tests for injuries to the specific areas of the body as listed above.

DI-P9: Assess neurological status, including cranial nerve function, myotomes, dermatomes and reflexes, and circulatory status.

DI-P10: Document the results of the assessment including the diagnosis.

MEDICAL CONDITIONS:

MC-C1: Describe and know when to refer common congenital or acquired abnormalities, physical disabilities, and diseases affecting people who engage in physical activity throughout their life span (e.g., arthritis, diabetes).

ACUTE CARE:

AC-C6: Differentiate the components of a secondary assessment to determine the type and severity of the injury or illness sustained.

AC-C22: Identify the signs and symptoms of trauma to the cervical, thoracic and lumbar spines, the spinal cord, and spinal nerve roots, including neurological signs, referred symptoms, and other symptoms that indicate underlying trauma and pathology.

ADMINISTRATION:
**Proficiencies Instructed**
- AD-P5: Use appropriate terminology and medical documentation to record injuries and illnesses (e.g., history and examination findings, progress notes, and others).
- AD-P6: Use appropriate terminology to effectively communicate both verbally and in writing with patients, physicians, colleagues, administrators, and parents or family members.

**V. Course Objectives/Learning Outcomes**

*This course is designed to enable students to:*
- Become proficient at recognizing potential emergency situations related to orthopedic injuries.
- Identify clinical anatomy.
- Assess an athlete’s posture and gait as it relates to injury prevention and return to play.
- Understand the relationships between joints, ligaments, muscles, and the nervous system in the presence of pathology.
- Become proficient at palpating anatomical landmarks.
- Perform deep tendon reflexes and other neurological screenings.
- Perform manual muscle testing.
- Recognize and understand different orthopedic conditions and be able to discern appropriate care, treatments, rehabilitation, and possible referral to a physician.
- Perform musculoskeletal evaluations that will reveal what injury is present.
- Become proficient in writing SOAP notes and progress notes.
- Apply evidence to the diagnostic process and choose appropriate orthopedic special tests in each case.
- Become proficient at performing all orthopedic special tests and putting all the findings together to come up with a final assessment.
- Understand when an athlete should be referred to a physician or another appropriate medical provider within the sports medicine team.

**VI. Course Topics**

*The major topics to be considered are:*
1. Recognizing orthopedic emergencies.
2. Performing the orthopedic evaluation – from the history through special testing.
3. Evaluating both acute and chronic injuries and recognizing associated signs and symptoms.
4. How to choose appropriate orthopedic special tests and how to interpret those results.
5. How to compile the results of the physical examination and make a final assessment.
6. When to refer an athlete to an orthopedic physician.

**VII. Instructional Methods and Activities**

*Methods and activities for instruction include:*
A. Traditional Experiences: 80% (lecture/discussion; demonstration; guest speaker)
B. Clinical Experiences 20% (laboratory activities and demonstrations in class)

**VIII. Evaluation and Grade Assignment**

*The methods of evaluation and the criteria for grade assignment are:*
A. **Methods and Percentage of Final Course Grade Each Assessment Constitutes**
   1. Traditional Assessment
      - Written Exams (2) = 100pts/apiece
      - Final Exam = 150pts
      - Quizzes (~10) = 10-15pts/apiece
Assignments (~10) = 10-20pts/apiece  
Class Participation = 30pts  
Total = ~630 pts

2. Performance Assessment  
Your final grade will be determined from your performance on exams, quizzes, and assignments. There are also points awarded for participation, which may be adversely affected by poor attendance.

B. Grading Scale
90.00-100% = A  
80.00-89.99% = B  
70.00-79.99% = C  
60.00-69.99% = D  
< 60.00% = F

IX. Course Schedule and Policies (see attached)
A. Tentative Course Schedule for KINE 3324 – Eval. of Lower Extremity Injuries (Spring 2013)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Associated Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-Jan</td>
<td>Syllabus &amp; Pre-Exam</td>
<td>Ch. 1,2</td>
</tr>
<tr>
<td>28-Jan</td>
<td>The Injury Examination Process &amp; Acute Injuries</td>
<td>Ch. 3,4,5</td>
</tr>
<tr>
<td>4-Feb</td>
<td>Foot &amp; Toes</td>
<td>Ch. 8</td>
</tr>
<tr>
<td>6-Feb</td>
<td>Foot &amp; Toes</td>
<td>Ch. 8</td>
</tr>
<tr>
<td>11-Feb</td>
<td>Foot &amp; Toes</td>
<td>Ch. 8</td>
</tr>
<tr>
<td>13-Feb</td>
<td>No Class – Reading Assignment</td>
<td>Article (BlackBoard)</td>
</tr>
<tr>
<td>18-Feb</td>
<td>Ankle &amp; Lower Leg</td>
<td>Ch. 9</td>
</tr>
<tr>
<td>20-Feb</td>
<td>Ankle &amp; Lower Leg</td>
<td>Ch. 9</td>
</tr>
<tr>
<td>25-Feb</td>
<td>Ankle &amp; Lower Leg</td>
<td>Ch. 9</td>
</tr>
<tr>
<td>27-Feb</td>
<td>Review for Exam #1</td>
<td>Ch. 1-5,8,9</td>
</tr>
<tr>
<td>4-Mar</td>
<td>EXAM #1</td>
<td>Ch. 1-5,8,9</td>
</tr>
<tr>
<td>6-Mar</td>
<td>Guest Speaker: Gus Villarreal</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>
<td></td>
</tr>
<tr>
<td>18-Mar</td>
<td>Knee &amp; Patellofemoral joints</td>
<td>Ch. 10,11</td>
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<tr>
<td>20-Mar</td>
<td>Knee &amp; Patellofemoral joints</td>
<td>Ch. 10,11</td>
</tr>
<tr>
<td>25-Mar</td>
<td>Knee &amp; Patellofemoral joints</td>
<td>Ch. 10,11</td>
</tr>
<tr>
<td>27-Mar</td>
<td>Knee &amp; Patellofemoral joints</td>
<td>Ch. 10,11</td>
</tr>
<tr>
<td>1-Apr</td>
<td>Pelvis &amp; Thigh</td>
<td>Ch. 12</td>
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<tr>
<td>3-Apr</td>
<td>Pelvis &amp; Thigh</td>
<td>Ch. 12</td>
</tr>
<tr>
<td>8-Apr</td>
<td>Pelvis &amp; Thigh</td>
<td>Ch. 12</td>
</tr>
<tr>
<td>10-Apr</td>
<td>Review for Exam #2</td>
<td>Ch. 10-12</td>
</tr>
<tr>
<td>15-Apr</td>
<td>EXAM #2</td>
<td>Ch. 10-12</td>
</tr>
<tr>
<td>17-Apr</td>
<td>Lumbar Spine</td>
<td>Ch. 13</td>
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<tr>
<td>22-Apr</td>
<td>Lumbar Spine</td>
<td>Ch. 13</td>
</tr>
<tr>
<td>24-Apr</td>
<td>Lumbar Spine</td>
<td>Ch. 13</td>
</tr>
</tbody>
</table>
B. Class Policies

Written Exams & Final
Two written exams will be given at the conclusion of their respective section. Material covered on the exam will mainly be from class lectures & notes as well as the Starkey textbook. There will also be material included on the exams from the lectures that don’t correspond with a chapter in the Starkey book. The cumulative Final exam will include test questions from the previous exams as well as a portion of questions over new information covered since the 2nd exam. No make-up exams will be given except under extreme circumstances. If you are late to an exam or quiz you will not be given extra time to take it.

When taking an exam or quiz – you may not touch your cell phone or any other electronic device during the exam or quiz. All bags, hats, etc. must be kept under your desk. Not adhering to these rules will be considered an attempt to cheat.

Quizzes
Quizzes will be both announced and unannounced. If you are absent and unexcused you will not be able to re-take the quiz.

Assignments
Examples are: handouts of anatomy, critiques of journal articles, outlines of chapters, or in-class activities, etc.

Class Participation & Attendance
There will be a performance assessment (30 points) of your class participation. To receive all 30 points you must be present and participate in ALL class discussions and laboratory activities. Your 3rd unexcused absence and every absence thereafter will result in the reduction of 5 points.

You are expected to be present each time the class meets; however, I will allow for two unexcused absences this semester. It’s to your benefit to attend class and participate daily. This course is challenging and it’s to your own benefit to be present to ask questions and get the notes.

An unexcused absence is any absence that is not an emergency or not due to a university related function/event in which you are required to participate. An emergency constitutes you going to the ER and bringing me a note from the ER doctor. A university event would be an athlete traveling with their team, traveling to represent the university, and similar situations. If you know you will miss a day of class for a university event you MUST communicate this with me beforehand or else you will not be able to make up the points from that day AND it will be counted as an unexcused absence. If you have a situation occur out of your control that you feel is an emergency then let me know ASAP and I will handle these situations with discretion. Obviously, communication is of most importance in all of these situations. You should call me or email me to inform me if you will not be able to attend a class in the future.

X. Textbook(s)

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

Recommended but not required supplementary textbook(s) is/are:


XI. Bibliography

*The knowledge bases that support course content and procedures include:*


5. Peer-reviewed literature related to orthopedic evaluation and orthopedic conditions.

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 CCH 117. 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.