I. COURSE DESCRIPTION
Apply fundamental pharmacologic knowledge of commonly prescribed medications used to prevent or treat health issues that occur in athletic populations. Review indication, mechanism of action and adverse effects of substances used to enhance athletic performance.

II. RATIONALE
Completion of this course satisfies cognitive, psychomotor, and affective educational competencies required by the Commission on Accreditation of Athletic Training Education (CAATE) prior to applying to sit for the Board of Certification (BOC) exam to become a Certified Athletic Trainer (ATC).

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

IV. TExES COMPETENCIES AND CAATE COMPETENCIES
a. TExES Competencies:n/a

b. NATIONAL COMPETENCIES & PROFICIENCIES FOR ATHLETIC TRAINING (CAATE 5th Ed.)
Prevention and Health Promotion
PHP-48. Explain the known usage patterns, general effects, and short- and long-term adverse effects for the commonly used dietary supplements, performance enhancing drugs, and recreational drugs.

PHP-49. Identify which therapeutic drugs, supplements, and performance-enhancing substances are banned by sport and/or workplace organizations in order to properly advise clients/patients about possible disqualification and other consequences.

Therapeutic Interventions
Therapeutic Medications
TI-21. Explain the federal, state, and local laws, regulations and procedures for the proper storage, disposal, transportation, dispensing (administering where appropriate), and documentation associated with commonly used prescription and nonprescription medications.

TI-22. Identify and use appropriate pharmaceutical terminology for management of medications, inventory control, and reporting of pharmacological agents commonly used in an athletic training facility.

TI-23. Use an electronic drug resource to locate and identify indications, contraindications, precautions, and adverse reactions for common prescription and nonprescription medications.

TI-24. Explain the major concepts of pharmacokinetics and the influence that exercise might have on these processes.

TI-25. Explain the concepts related to bioavailability, half-life, and bioequivalence (including the relationship between generic and brand name drugs) and their relevance to the patient, the choice of medication, and the dosing schedule.
TI-26. Explain the pharmacodynamic principles of receptor theory, dose-response relationship, placebo effect, potency, and drug interactions as they relate to the mechanism of drug action and therapeutic effectiveness.

TI-27. Describe the common routes used to administer medications and their advantages and disadvantages.

TI-28. Properly assist and/or instruct the patient in the proper use, cleaning, and storage of drugs commonly delivered by metered dose inhalers, nebulizers, insulin pumps, or other parenteral routes as prescribed by the physician.

TI-29. Describe how common pharmacological agents influence pain and healing and their influence on various therapeutic interventions.

TI-30. Explain the general therapeutic strategy, including drug categories used for treatment, desired treatment outcomes, and typical duration of treatment, for the following common diseases and conditions: asthma, diabetes, hypertension, infections, depression, GERD, allergies, pain, inflammation, and the common cold.

TI-31. Optimize therapeutic outcomes by communicating with patients and/or appropriate healthcare professionals regarding compliance issues, drug interactions, adverse drug reactions, and sub-optimal therapy.

V. COURSE OBJECTIVE AND OUTCOMES

This course is designed to enable the students to:

1. Explain the laws, regulations, and procedures that govern storing, transporting, dispensing, and recording prescription and nonprescription medications.
2. Identify appropriate pharmaceutical terminology and abbreviations used in the prescription, administration, and dispensing of medications.
3. Identify information about the indications, contraindications, precautions, and adverse reactions for common prescription and nonprescription medications using current pharmacy resources.
4. Explore the path physiology, signs/symptoms, and treatment options of human disorders often diagnosed in athletes.
5. Recognize credible hard copy and electronic drug references used to determine the correct maximum daily dose and administration of medications used in sports medicine.
6. Understand the athletic trainer’s role in recognizing drug abuse and understanding of classes of substances banned by the National Collegiate Athletic Association (NCAA) and International Olympic Committee (IOC).
7. Identify medications that might cause possible poisoning, and describe how to activate and follow the locally established poison control protocols.

VI. COURSE TOPICS

The major topics to be considered are the classifications, therapeutic uses, actions, side effects/adverse reactions of major drug groups related to sports activities, pharmacokinetics, legal concerns, therapeutic outcome of drugs commonly used to treat athletes, protocols for over-the-counter medications, and substance abuse.

VII. INSTRUCTIONAL METHODS AND ACTIVITIES

A. Traditional Experiences

The course will include assigned chapter readings, online video postings, powerpoint presentations, and additional readings as appropriate. Blackboard will be used for delivery of course materials including quizzes, assignments, announcements, and other information related to the course.

VIII. EVALUATION AND GRADE ASSIGNMENT
**Methods of Evaluation**

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Participation (ongoing)**</td>
<td>50%</td>
</tr>
<tr>
<td>Tests (4)</td>
<td>40%</td>
</tr>
<tr>
<td>Final (1)</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Online Participation can/will include posted assignments, discussion forum, quizzes and projects. Blackboard will be the primary method of evaluation for the online participation score. Please ensure you have access to Blackboard and keep track of assignments, quizzes etc.**

**IX. CLASS SCHEDULE AND POLICIES**

**Attendance**
The entire course including assignments, quizzes and exams are available on-line and are available according the course schedule. Students are required to complete the course work when assigned and complete the work by the due date. Excused absences are limited to participation in a TAMUCC sanctioned event or participation in a religious holy day as outlined in the University catalog; however, because there is typically is sufficient time to complete all assignments missed assignments, quizzes and exams will only be made up in extreme circumstances. Any assignment, quiz, or test missed due to a TAMUCC sanctioned event must be completed prior to the absence. Coursework, assignments, and quizzes may not be made-up due to tardiness. **Consistent and punctual attendance and participation is critical to the successful completion of this course.** If the student misses an assignment, quiz or exam due to emergencies which involve illness, family emergencies etc., it is the responsibility of the student to notify the instructor as soon as possible via e-mail or phone.

**Technology**
This course is delivered via Blackboard.
Important Note: All students must enter a User Name and Password to access their Blackboard account. Student User Names will be your student ‘A’ number (i.e. A00123456). Student passwords will default to date of birth; however, passwords should be changed after the initial log in.

If a student experiences technical difficulties, please call the Island Online (IOL) support line at 361-825-2825. Additionally, please notify the instructor ASAP via phone or e-mail.

**Academic Integrity/Plagiarism**
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, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a zero on the assignment, exam or quiz and a referral to the judicial board of academic affairs.

**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. Friday April 11, 2014 is the last day to drop a class with an automatic grade of “W” this term.
TENTATIVE COURSE SCHEDULE

*Indications, contraindications, precautions, and adverse reactions will be discussed for each drug category. Additionally, generic and brand names will be discussed within each category.

<table>
<thead>
<tr>
<th>Week</th>
<th>Units/Topics</th>
<th>Tests and Assignments</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unit 1:1-History, Legal Issues, Documentation and Terminology</td>
<td>posted to BB</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Unit 1:2-Pharmacokinetics, Pharmodynamics and Routes of Administration</td>
<td>posted to BB</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Unit 2:1-Anti-inflammatories</td>
<td>Unit 1 test, posted to BB</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Unit 2:2-Muscle Relaxants</td>
<td>posted to BB</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Unit 2:3-Analgesics and Anesthetics</td>
<td>posted to BB</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>Unit 2 review, Q&amp;A</td>
<td>Unit 2 test</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Unit 3:1- Diabetes and Gastrointestinal</td>
<td>posted to BB</td>
<td>5, 8</td>
</tr>
<tr>
<td>8</td>
<td>SPRING BREAK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Unit 3:2-Respiratory and Cardiovascular</td>
<td>posted to BB</td>
<td>6, 7</td>
</tr>
<tr>
<td>10</td>
<td>Unit 3:3-Antiviral, antibiotic and antifungal</td>
<td>posted to BB</td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td>Unit 3 review, Q&amp;A</td>
<td>Unit 3 test</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Unit 4:1-Steroids</td>
<td>posted to BB</td>
<td>11</td>
</tr>
<tr>
<td>13</td>
<td>Unit 4:2-Stimulants and Ergogenic Aids</td>
<td>posted to BB</td>
<td>12, 13</td>
</tr>
<tr>
<td>14</td>
<td>Unit 4:3-Substance Abuse, overdose and poisoning</td>
<td>posted to BB</td>
<td>14, 15</td>
</tr>
<tr>
<td>15</td>
<td>Unit 4 review, Q&amp;A</td>
<td>Unit 4 test</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Finals week</td>
<td>Final</td>
<td></td>
</tr>
</tbody>
</table>

The instructor reserves the right to change the schedule to cover all subjects thoroughly. Information presented in class may come from a source other than the textbook. **No make-up tests will be given except under extreme circumstances.** A physician’s note is necessary if you are ill.

X. TEXTBOOKS

Required:

Recommended:

XI. BIBLIOGRAPHY

Journal articles pertinent to class materials will be made available to all students via Blackboard postings, email or discussion forum.

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. DISABILITY 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.

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**KINE 4328-Sport and Exercise Pharmacology**  
**Syllabus Acknowledgment Form**

I, (print name) __________________________________________, certify by my signature that I have read and understand the class policies that have been presented in the class syllabus for KINE 4328 Sport and Exercise Pharmacology at Texas A&M University-Corpus Christi.

Signature __________________________________________ Date ____________________

Student ID # _____________________

Submit this form to instructor via Blackboard e-mail, fax (361-825-3708), or in person to the Kinesiology Department (3rd floor of Island Hall).