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. 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 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 Objectives/Learning Outcomes**

*This course is designed to enable 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:*

1. Classifications, therapeutic uses, actions, side effects/adverse reactions of major drug groups related to sports activities
2. Pharmacokinetics, legal concerns, therapeutic outcome of drugs commonly used to treat athletes

VII. **Instructional Methods and Activities**

*Methods and activities for instruction include:*

A. Traditional Experiences: 100% 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. (Tentative) 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

15 Units - 30 points/unit = 350 pts
10 pts - Pre Unit Quiz
10 pts - Case Study
10 pts - Unit Reflection
1 Cumulative project - 100 points
3 Exams - 100 points/exam = 300 pts
1 Final Exam - 150 points

Total = 900 pts

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

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.

(Include date for semester) is the last day (April 8th, 2016) to drop a class with an automatic grade of “W” this term.

IX. Course Schedule and Policies

A. A tentative course schedule (see appendix)

B. Class Policies

*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.)

Disciplinary action for academic misconduct is the responsibility of the faculty member assigned to the course. The faculty member is charged with assessing the gravity of any case of academic dishonesty, and with giving sanction to any student involved. 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, such as dismissal from the program or from the University.

See the University Catalog for more information.

X. Textbook(s)

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 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 Corpus Christi Hall 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.

**Extra Credit**

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.
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<thead>
<tr>
<th>Dates</th>
<th>Topic</th>
<th>Chapter</th>
<th>Assignment</th>
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<td>Syllabus &amp; History, Legal Issues, Documentation, and Terminology</td>
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<tr>
<td>Jan 25-31</td>
<td>Pharmokinetics, Pharmodynamics, and Rout of Admin</td>
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<td>Feb 1-7</td>
<td>Anti-inflammatory</td>
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<td>Feb 8-14</td>
<td>Muscle Relaxants</td>
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<td>Unit 4 Assignments</td>
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<td>Feb 15-21</td>
<td>Analgesics and Anesthetics</td>
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<td>Feb 22-28</td>
<td>Diabetes</td>
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<td>Feb 29-Mar 6</td>
<td>Gastrointestinal</td>
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<td>Respiratory</td>
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<td>Mar 14-20</td>
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<td>Mar 21-27</td>
<td>Cardiovascular</td>
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<tr>
<td>Mar 28-Apr 3</td>
<td>Antiviral, Antibiotics &amp; Antifungal</td>
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<td>Apr 4-10</td>
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<td>Apr 11-17</td>
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<td>Ergogenic Aids</td>
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<td>Unit 13 Assignments</td>
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<td>Apr 25-May 1</td>
<td>Substance Abuse Overdose &amp; Poisoning</td>
<td>14 &amp; 15</td>
<td>Unit 14 Assignments</td>
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<td>May 3</td>
<td>Review</td>
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<td>Unit 15 Assignments</td>
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<tr>
<td>May 5</td>
<td>Finals Week</td>
<td></td>
<td>Final Exam</td>
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