

**KSS 4900-Special Topics in Exercise Physiology: Pharmacology
Fall 2010**

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Office: 1541 Lantz Athletic Training Room
Office Hours: Tuesday 10-11, or by appointment.

Class Time: Tuesday 11-11:50

Text: No text is required; however, all students should have *Arnheim's Principles of Athletic Training: A Competency-Based Approach* (Eleventh Edition) by William Prentice available for reference.

Course Description:

This course will provide an overview of the general concepts of pharmacology (the study of drugs); the uses of non-prescription, prescription, and classified pharmaceuticals; and the effects of drugs (including performance-enhancement drugs) as they relate to physically active individuals.

Course Overview:

This course will examine the general concepts of pharmacology and pharmacokinetics as they relate to the immediate and ongoing care of injuries and illnesses in sports medicine and athletic training. Areas will include general indications, contraindications, and adverse reactions of commonly used prescription and non-prescription drugs, including: anti-inflammatory medications (steroidal and nonsteroidal), analgesics, local anesthetics, bronchodilators and other respiratory medications, antibiotics, beta-blockers and hypertensives, and performance-enhancing drugs.

Course Objectives:

By the end of the semester, the student will be able to:

1. Recognize the general concepts of pharmacology and pharmacokinetics.
2. Identify situations that may require prescription and non-prescription medications for treating certain symptoms associated with illness and injury.
3. Explain general indications, contraindications, and adverse reactions of commonly used prescription and non-prescription drugs.
4. Recognize how both prescription and non-prescription medications may affect athletic performance.
5. Provide general health information to physically active individuals regarding the use of prescription and non-prescription medications.
6. Follow federal, state, and local regulations regarding storage, transportation, dispensing, and recording medications.

Course Outline:

1. Introduction and Management of Pharmacology
2. Pharmacodynamic and Pharmacokinetic Principles
3. Drugs for Treating Inflammation
4. Drugs for Treating Pain
5. Drugs for Treating Gastrointestinal Disorders
6. Drugs for Treating Colds and Allergies
7. Drugs for Treating Asthma
8. Drugs for Treating Infections
9. Drugs for Treating Diabetes, Seizures, ADD
10. Drugs for Treating Hypertension and Heart Disease
11. Performance Enhancing Drugs
12. Drug Testing

Course Evaluation:

1. Quizzes (10 points each)- A quiz will be given each week on the previously covered material.
2. Article review (20 points)- An article review from a sports medicine journal that discusses the use of drugs (nonprescription, prescription, performance-enhancing).
3. Midterm Examination
4. Final Examination

Grading:

The final grade will be based on the following scale from the total points accumulated:

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = Below 59%

Attendance:

Attendance is required at each class. If you are going to be traveling with a team, please let me know in advance so that you can make up the quiz.

Academic Dishonesty: Cheating, collusion, and plagiarism will not be tolerated. Those students reasonably suspected of academic dishonesty by the course instructor will fail the coursework involved and/or the course and details will be submitted to the Office of Judicial Affairs for student conduct.