

General Medical Conditions
EXRS 3240

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Catalog Description:

Recognition and treatment of general medical conditions and disabilities of athletes and others involved in physical activity. Application of pharmacological principles in the treatment of illness, injury, and disease for an athletic population.

Course Objectives:

1. Recognize the general concepts and legal regulations of non-prescription and classified pharmaceutical agents.
2. Recall and access the laws governing the administration and dispensing of pharmaceutical agents.
3. Describes the kinetic process of absorption, distribution, metabolism and elimination of medications.
4. Describes how physical activity may influence a drug's therapeutic dose effect.
5. Describes the general indications, contraindication, side effects, dosing, warning and the generic and brand name for the following pharmaceutical classes:
 - a. Anti-inflammatory (steroids and non-steroidal)
 - b. Antiarthritic
 - c. Analgesics
 - d. Local anesthesia
 - e. Antibiotics
 - f. Respiratory medications
 - g. Anaphylaxis medications
 - h. Gastrointestinal medications
 - i. Beta-blockers and antihypertensive medications
 - j. Prescription and nonprescription topical applications
 - k. Performance enhancing drugs
6. Doping Control
7. Describe congenital or acquired abnormalities, physical disabilities and diseases.
8. Identifies common illnesses and diseases of the body based on contemporary epidemiological studies.
9. Recognizes the coming signs and symptoms for the following conditions and/or body parts:
 - a. Eye pathology
 - b. Ear pathology
 - c. Mouth, sinus, oropharynx, and nasopharynx
 - d. Respiratory infection
 - e. Asthma
 - f. Cardiopulmonary conditions
 - g. Internal organs (gall bladder, kidneys, bladder etc.)
 - h. Male and female reproductive organs
 - i. Sexual transmitted diseases

- j. Skin lesions
 - k. Contagious viral diseases
 - l. Diabetes
 - m. Seizures
 - n. Sleep apnea
 - o. Cancer
10. Sudden death syndrome in athletics

The following clinical skills should be obtained during the semester

1. Use of otoscope to examine ears and nasal passages
2. The use and interpretation of urine diagnostics chemstrips
3. Use of a stethoscope for heart, lung and bowel sounds

Textbook

Landry, G.L. Bernhardt, D. T. (2003). Essentials of Primary Care Sports Medicine. Human Kinetics.

Bahrke, MS Yesalis, CE (2004). Performance Enhancing Substances in Sport and Exercise. Human Kinetics.

University Honor Code and Academic Honesty Policy

Students in this course are expected to conform to the UGA Student Honor Code: " I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." Academic honesty means performing all academic work without plagiarism, cheating, lying, tampering, stealing receiving unauthorized or illegitimate assistance from any other person, or using any source of information that is not common knowledge. Examples of academic dishonesty are copying answers from another student during an exam, giving a false excuse for failing to show up for an exam, obtaining advance exam copies by unauthorized means, and damaging a computer disk to prevent evaluation of the work on that disk. Students who assist other students in academically dishonest acts are in violation of the policy. Consequences of academic dishonesty may include receiving a lower grade, community service, a notation on the student's transcript, or suspension or expulsion from the University. Students have the responsibility for knowing the University's policy and procedures on academic dishonesty, which are described in the publication, A Culture of Honesty. Copies of this publication can be obtained from the Office of the Vice President for Instruction or may be viewed at the following web site: <http://www.uga.edu/ovpi/>.

Research Paper

You are to select a specific medical condition and describe the pathomechanics, clinical history, common signs and symptoms, clinical course and pharmacological treatment. The paper should be 4-7 pages in length (types and double spaced) and have at least 5 scientific references. Topic is due on Sept 20, outline is due on October 8 and paper is due November 10. Presentations will be scheduled for November and December.

Grading

Grading will be based on course projects, quizzes, research paper, class assignments and tests.

Test 1	75 Points
Test 2	75 Points
Test 3	75 Points
Quizzes (5)	50 Points
Final Examination	100 Points
Quick Hitter	10 Points
Research Paper	30 Points
<u>Research Presentation</u>	<u>15 Points</u>
Total Points	430 Points

Final Grade will be based on points earned in the course as follows:

A=387-430 Points

B=344-386 Points

C=301-343 Points

D=258-300 Points

F=<258 Points

Course Outline

Week	Monday	Wednesday	Friday
1 Aug 16-20			Course Introduction
2 Aug 23-27	Drug Terminology and Legal Issues	Legal Issues	Management of Pharmacological Products in the Athletic Training Room
3 Aug 30-Sept 3	Kinetics and Absorption of Pharmacological Products	Analgesics – BY Chap 11	Analgesics QUIZ 1
4 Sept 6-10	NO CLASS	Anti-Inflammatory – BY Chap 12	Anti-Inflammatory
5 Sept 13-17	Anti-Inflammatory	Test 1	Performance Enhancing Drugs – BY Chap 2
6 Sept 20-24	AAS – BY Chap 3	Blood Doping and Epo – Chap 8 & 9	Ephedrine – BY Chap 24
7 Sept 27-Oct 1	Doping Control – BY Chap 27 & 28	Doping Control – BY Chap 27 & 28	Epidemiological of Disease and Illness QUIZ 2
8 Oct 4-Oct 8	Sudden Cardiac Death – LB Chap 1	Diabetes – LB Chapter 4	Diabetes – LB Chapter 4
9 Oct 11-15	Respiratory Pathologies – LB Chapter 8	Respiratory Pathologies – LB Chapter 8	Gastroenterological Pathologies – LB Chapter 2 QUIZ 3
10 Oct 18-22	Gastroenterological Pathologies – LB Chapter 2	Gender Based Pathologies – LB Chapter 6	Test 2
11 Oct 25-29	STD and Blood Borne Infections – LB Chapter 9	STD and Blood Borne Infections – LB Chapter 9	FALL BREAK
12 Nov 1-5	Common Infectious Disease – LB Chapter 10	Weight Control – LB Chapter 12	Common Infectious Disease – LB Chapter 10
13 Nov 8-12	Dermatological Conditions – LB Chapter 7	Dermatological Conditions – LB Chapter 7	Ear, Eye and Maxillofacial Pathologies – LB Chapter 5
14 Nov 15-19	Environmental Concerns – LB Chapter 16	Environmental Concerns – LB Chapter 16	Environmental Concerns – LB Chapter 16 - QUIZ 4
15 Nov 22-26	Growth and Maturation – LB Chapter 18	Test 3	THANKSGIVING
16 Nov 29 – Dec 3	PPPE – LB Chapter 19	Respiratory and Other General Medications	Poisons, stings and bites
17 Dec 6-10	Cancer		QUIZ 5 - Course Review

Generic Name	Warfarin
Commercial Name	Coumadin
Schedule of Substance/Pregnancy Category	UK
Indications	Anticoagulants used in the treatment of venous thrombosis, pulmonary embolism and management of myocardial infarction. Also used to decrease the risk of death and the risk of further myocardial infarctions and thromboembolic events. Can be used in the prevention of thrombus formation.
Contraindications	Pregnancy, uncontrolled bleeding, open wounds, active ulcer disease, recent brain, eye or spinal cord injury or surgery, severe liver disease, uncontrolled hypertension.
Adverse Reaction/Side Effects	Nausea, cramps, fever, <u>bleeding</u> Assess patient for signs of bleeding (gums, nose), bruising, tarry black stool, hematuria, decreased BP. Hepatic function and CBC should be monitored prior to and during therapy
Pharmacokinetics	IV – absorbed directly into the bloodstream PO – well absorbed by the GI tract Both administration routes are metabolized by the liver.
Route of Administration	PO, IV
Dosage/Frequency	6-10 mg/day for 2-4 days then adjust dose. In elderly dosage is less, 2-10 mg/day.
Time/Action Profile (onset, peak, duration)	Onset- Several hours Peak – 0.5-3 days Duration – 2-5 days
Half-Life	0.5-3 days