

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.

Houglum J., Harrelson G., Leaver-Dunn- D. (2005). Principles of Pharmacology for Athletic Trainers. SLACK Inc.

Supplemental Text

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

Physicians Desk Reference (2005).

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/>.

All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work.

The link to more detailed information about academic honesty can be found <http://www.uga.edu/ovpi/honesty/acadhon.htm>

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 25, outline is due on October 13 and paper is due November 20. 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=93% or better

A-=90%-93%

B+=87%-90%

B=83%-87%

B-=80%-83%

C+=77%-80%

C=73%-77%

C-=70%-73%

D+=67%-70%

D=63%-67%

D-=60%-63%

F=<60%

Course Outline

Week	Monday	Wednesday	Friday
Aug. 14-18		Course Introduction	Drug Terminology and Legal Issues
Aug. 21-25	Legal Issues	Management of Pharmacological Products in the Athletic Training Room	Heart, Lung and Bowel Sounds Lab – Dr. Reifsteck
Aug. 28-Sept. 1	Kinetics and Absorption of Pharmacological Products PHARM Chap 2	Analgesics – PHARM Chap 7	Analgesics QUIZ 1
Sept. 4-8	NO CLASS	Anti-Inflammatory – PHARM Chap 7	Anti-Inflammatory
Sept. 11-15	Anti-Inflammatory	Test 1	Performance Enhancing Drugs – PHARM Chap 13
Sept. 18-22	AAS	Blood Doping, Epo Ephedrine	Doping Control – PHARM Chap 14
Sept. 25-29	Doping Control – UGA Policy and Procedures PHARM Chap 14	Pre-Participation Physical Examination QUIZ 2	Sudden Cardiac Death – LB Chap 1
Oct. 2-6	Diabetes – LB Chapter 4	Diabetes – LB Chapter 4	Respiratory Pathologies – LB Chapter 8, PHARM Chap 195
Oct. 9-13	Respiratory Pathologies – LB Chapter 8, PHARM Chap 195	Gastroenterological Pathologies – LB Chapter 2, PHARM Chap 11 QUIZ 3	Blood Glucose and Urine dip stick Measurements and Peak Flow Meter Lab
Oct. 16-20	Gastroenterological Pathologies – LB Chapter 2, PHARM Chap 11	Test 2	Gender Based Pathologies – LB Chapter 6
Oct. 23-27	Blood Borne Infections – LB Chapter 9	STD– LB Chapter 9, Dr. Russo	FALL BREAK
Oct. 30- Nov. 3	Interpretation of Lab Values - Dr. Elliott	Weight Control – LB Chapter 12	Weight Control – LB Chapter 12
Nov. 6-10	UTI/URI – Kelly Ward, PA, ATC	Eye Injuries – Dr. Stuart Thomas	Ear, Eye and Maxillofacial Pathologies – LB Chapter 5
Nov. 13-17	Environmental Concerns – LB Chapter 16	Environmental Concerns – LB Chapter 16	Environmental Concerns – LB Chapter 16 - QUIZ 4
Nov. 20-24	Growth and Maturation – LB Chapter 18	Test 3	THANKSGIVING
Nov. 27-Dec. 1	PPPE – LB Chapter 19	Skin Conditions – Dr. Elliott	Poisons, stings and bites
Dec. 4-8	Seizures and Sleep Apnea	QUIZ 5 - Course Review	

Generic Name	Insulin
Commercial Name	Humulin
Schedule of Substance/Pregnancy Category	Pregnancy Category B
Indications	Treatment of insulin-dependent diabetes mellitus (Type I) and for the management of non-insulin dependent diabetes mellitus (Type II) which is unresponsive to treatment with diet and/or oral hypoglycemic agents
Contraindications	Allergy or hypersensitivity to a particular type of insulin, preservatives or other additives
Adverse Reaction/Side Effects	Urticaria, HYPOGLCEMIA, lipodystrophy, itching, swelling redness, ANAPHLAXIS
Pharmacokinetics	Rapidly absorbed from SC administration sites. Absorption rate determined by type of insulin, volume of injection, injection site and other factors
Route of Administration	IV, SC
Dosage/Frequency	SC- 0.5-1 unit/kg/day IV – 0.1 unit/kg/hr as a continuous infusion.
Time/Action Profile (onset, peak, duration)	Onset- 1-4 hrs Peak – 6-12 hrs Duration – 18-28 hrs
Half-Life	UK