

Medical Pharmacology  
Dr. C.E. Creutz  
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## INTRODUCTION TO MEDICAL PHARMACOLOGY - 2003-2004

### OVERVIEW

The Pharmacology course (Pharm 630) extends over both semesters of the Second Year.

The three goals of the course are, in order of importance, to learn the basic mechanisms of action of the major drug classes, to learn the fundamentals of their therapeutic use, and to memorize the major representative drugs of each class.

All lectures will be held in Jordan Auditorium 1-14.

The order of the lectures is a compromise between two objectives: i) the need for a reasonably rational sequence of pharmacological topics and ii) the need to integrate the Pharmacology course with your POM2, Pathology and Psychopathology courses.

### ORGANIZATION

Dr. Carl E. Creutz (Professor of Pharmacology) is course director.

The course is divided into 6 sections, each under the responsibility of a member of the Pharmacology Faculty acting as section leader. Sections 1-3 represent about half the course load and will be taught during the first semester. Sections 4-6 will be presented during the Spring semester.

The scope of each section and the faculty in charge are as follows:

Section	Topics	Section Leader	Tel #	E-mail address
I	General Principles	Dr. Carl Creutz	924-5029	cec3n@virginia.edu
II	Autonomic and GI Drugs	Dr. James Garrison	924-5618	jcg8w@virginia.edu
III	Renal and Cardiovascular	Dr. Patrice Guyenet	924-9974	pgg@virginia.edu
IV	CNS Drugs	Dr. Patrice Guyenet	924-9974	pgg@virginia.edu
V	Antimicrobial Drugs	Dr. Kevin Lynch	924-2840	krl2z@virginia.edu
VI	Cancer Chemotherapy /Hormones /Miscellaneous	Dr. Douglas Bayliss	924-2449	dab3y@virginia.edu

Dr. Creutz should be consulted for matters concerning exams, grading, and general problems with the course.

If or when you have questions concerning specific aspects of the material taught in class, please consult with the faculty member who has given the lecture or with the relevant section leader. Our telephone numbers and E-mail addresses are provided above.

### EXAMINATIONS

Four examinations will be given, two interim exams in the first semester and one interim plus a Final in the second semester.

**These exams are confidential, are not to be circulated for any reason and are modified every year.** You will be supplied with a large number of sample questions in self-evaluation exams posted on the course website that are designed for you to practice the type of intellectual exercise that is required in the exams (see next section).

**Interim exam I** will be held on Monday October 13 from 8:00 to 12:00. This exam will cover Sections 1 and 2 of the course or about 29% of the total course material. It will consist of around 95 questions and your score will contribute 21% to your overall grade.

**Interim exam II** will be held on Wednesday December 17 from 8:00 to 12:00 and will cover Section 3 only or about 22% of your course material; it will consist of around 70 questions and will contribute around 16% to your final grade.

**Interim exam III** will be held on Thursday March 11 and will cover sections 4 and 5 of the course, representing about 31% of the course material. It will consist of around 105 questions and will contribute about 23% to your final grade.

**The FINAL EXAM** will be held on Friday May 14. This is a comprehensive exam covering the entire course. About 40% of the 145 questions will be on section 6, representing 18% of the course material, while the remainder will be drawn from sections 1 to 5. This exam will contribute around 40% to your final grade.

**Passing grade:** A passing grade in Pharmacology is C minus and typically requires a grand average of 65% correct answers.

## **PRACTICE TESTS**

Several hundred practice questions are posted on the Pharmacology Course Website. Detailed answers and explanations to the questions are provided on the web site, therefore providing a valuable review of concepts presented in the lectures.

Some of the practice questions will be also given out in a paper version without answers or explanations (along with the handouts). You may want to try and solve the problems using the paper version before looking up the answers on the computer.

## **DISCUSSION SESSIONS WITH FACULTY**

We will have an extra small group meeting most weeks on Tuesday from 5:15 to 6:30 PM in the conference room of the Pharmacology Department (room 5023, Jordan Hall). These sessions, voluntary and open to anyone interested, are designed to provide an opportunity for you to ask additional questions, continue discussions, clarify points, or further explore the subject of the last week's lectures. A faculty member will be present to lead the discussion. The schedule of these conferences will be posted on the course news group and announced in lecture.

## **COURSE NEWS GROUP**

The Pharmacology Course Newsgroup ( <http://www.hsc.virginia.edu/med-ed/discus3/messages/29/29.html?1028830159> ) is linked on the Course Website. You may use your web browser to conveniently access and participate in this news group. The news group will be used routinely by the Faculty to post announcements such as schedule changes, hand-out corrections and the like. You may also use this group to post questions related to the Pharmacology course. They can be answered by your classmates and/or the Faculty.

## **DRUG NAMES**

In most instances, only the USAN (United States Adopted Name) or nonproprietary ("generic") name of a drug will be used in this course because there may be numerous trade names or proprietary names for a given agent.

However, in your clinical studies, you will find that certain proprietary names are used extensively, sometimes exclusively. The responsibility to learn the proprietary equivalents of the drugs covered in the Medical Pharmacology course will be yours alone and your knowledge of proprietary drug names will not be tested by the Pharmacology faculty, although the trade names may be given in the handouts for some of the more popular drugs. The best time to learn the trade names is between the end of the course and the start of your clerkships. A number of reference manuals may be helpful for you, such as "Handbook of Commonly Prescribed Drugs" by DiGregorio and Barbieri, published by Medical Surveillance Press.

## **SOURCES OF PHARMACOLOGICAL INFORMATION**

For this course, you will rely heavily on detailed lecture notes that will contain the essentials of the subject

matter. Although there is no required textbook for this course, we **strongly recommend** that you consult one or more additional texts as a way of reinforcing the material presented. We particularly recommend the following sources of information:

**Recommended textbook:**

Katzung, B.G. : BASIC AND CLINICAL PHARMACOLOGY (8th edition, 2001) Appleton and Lange.

The lecturers will routinely recommend specific chapters from this text for you to read.

**Recommended reference book:**

Goodman and Gilman's THE PHARMACOLOGICAL BASIS OF THERAPEUTICS. Edited by J.G. Hardman, L.E. Limbird, P.B. Molinoff, R.W. Ruddon and A.G. Gilman, 10th edition, 2001, McGraw-Hill.

This is **the** reference book to be consulted for points of detail after you get the big picture. It is a worthwhile investment for reference as you continue your studies and enter practice.

**Recommended study guide for Pharmacology Exam review and board exam review:**

Katzung and Trevor: Examination and Board review, Pharmacology (Check for latest edition). Appleton and Lange. This, or a number of similar books can provide a wealth of sample questions to test your knowledge of Pharmacology.

**Additional Sources of Pharmacological Information:**

- 1) Rang, Dale, Ritter and Gardner, Pharmacology, Churchill-Livingstone, 1995.
- 2) Smith, C.M. and Reynard, A.M. (eds.) Textbook of Pharmacology, 1992. W.B. Saunders Co.
- 3) Brody, T.M., Larner, J., Minneman, K.P. and Neu, H.C.. (eds.). Human Pharmacology: Molecular to Clinical (2nd edition), 1994. Mosby, Inc.
- 4) Craig C.R. and Stitzel R.E.(eds.) Modern Pharmacology, 4th edition 1994, Little, Brown and Company, Boston.
- 5) AMA Drug Evaluations, yearly publication of the American Medical Association.
- 6) Simple textbooks: these books may be useful as memory aids to remember drug names but they won't provide you with the understanding of the mechanisms of action (Lippincott's Illustrated Reviews by Harvey and Champe 2nd edition, 1997, Lippincott-Raven. Basic concepts in Pharmacology: a student's survival guide by Janet Stringer, McGraw-Hill, 1995).

**Copies of many of these books will be on reserve in the Health Sciences Library.**