

Spring 1-2003

PHAR 331.01: Pharmaceuticals

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Chuck Thompson – SB383 (office), SB375 (lab), 243-4643 (phone), cmthomp@selway.umt.edu (email)

Time and Place: MWF, 10:10 – 11:00 AM, SB117; R, 11:10 – 12:00 N, CP204

Required Text: *Pharmaceutics Course Pack*

References: *Pharmaceutical Dosage Forms and Drug Delivery Systems*, Ansel, Popovich and Allen
Pharmaceutical Calculations, Stoklosa and Ansel
Physical Pharmacy, Martin
Remington: The Science and Practice of Pharmacy

Organization:

The course will meet 55 times during the semester. Class time will be used for lecture, discussion, calculations, problem sessions, presentations, reviews and exams.

Learning Objectives

At the conclusion of this course, the students should be able to

1. understand and discuss the principles of physical pharmacy that are used for the design, manufacture and evaluation of dosage forms and other drug delivery systems.
2. use their knowledge of the physical-chemical properties of drugs and dosage forms to solve drug delivery problems.
3. understand and discuss the basic concepts of biopharmaceutics that will provide the background for understanding and applying the principles of clinical pharmacokinetics.

Grading:	Three exams (100 points each)	300 pts
	Final exam	150 pts
	Presentations and class participation	<u>50 pts</u>
	TOTAL	500 pts

Grading scale: A=90%
 B=80%
 C=70%
 D=60%.

Exams:

If you are unable to attend a scheduled exam, you must contact the instructor prior to the exam. No make-up exams will be given prior to a scheduled exam. Questions concerning grading must be submitted *in writing or by email* within one week after exams are returned.

Presentations:

Small group presentations in the general areas of pharmaceutical biotechnology or novel dosage forms and drug delivery systems are scheduled for the last week of classes. Topics can be selected from a list provided by the instructor, or groups can choose their own topics to be approved by the instructor.

Course Schedule:

DATE	TOPICS [HOURS] - INSTRUCTOR
27 Jan	Introduction to pharmaceutics; Pretest [1] – H. Beall
29 Jan-24 Feb	Physical pharmacy [15] – C. Thompson
Friday, 28 February – Exam 1 [1]	
26 Feb-5 Mar	Properties of solutions [4] – H. Beall
6-7 Mar	Oral solutions [2] – H. Beall
10 Mar	Ophthalmic, nasal and otic dosage forms [1] – T. Cochran
12 Mar	Aerosol, inhalation and spray dosage forms [1] – D. Beall
13-14 Mar	Dosage forms, general considerations [2] – H. Beall
Friday, 21 March – Exam 2 [1]	
17-20 Mar	Drug stability, kinetics [3] – H. Beall
31 Mar-4 Apr	Biopharmaceutics [4] – H. Beall
7-11 Apr	Solid dosage forms [4] – H. Beall

Course Schedule (continued):

DATE	TOPICS [HOURS] - INSTRUCTOR
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Friday, 18 April – Exam 3 [1]

14-17 Apr	Pharmaceutical dispersions [3] – H. Beall
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21-23 Apr	Ointments, transdermal delivery systems [2] – H. Beall
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24 Apr	Suppositories [1] – H. Beall
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25-30 Apr	Parenteral dosage forms [3] – H. Beall
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1-2 May	Drug development [2] – H. Beall
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5-9 May	Student presentations [4] – Class
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Tuesday, 13 May – Final Exam, 10 AM – 12 Noon, SB117
