Steven A. Fink; Instructor

Fall 2013

MSA 111; S 9:35 - 12:50

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OFFICE HOURS: 12:50-1:20 AM [MSA 111]

Dental Hygiene 208

# **PHARMACOLOGY**

<u>Course Description:</u> This course presents the basic principles of pharmacology including the pharmacodynamics, pharmacokinetics, adverse reactions, and contra-indications of selected drug groups. Emphasis will be placed on those drug groups especially relevant to dental practice including analgesics, local anesthetics, nitrous oxide, anti-infectives, antibiotics and anti-viral drugs. In addition, the most common classes of drugs the dental patient is taking in the management of common diseases and disorders will be covered, including autonomic drugs, cardiovascular drugs, antihistamines, anti-inflammatory drugs, sedatives, anxiolytics & anti-depressants, hormones, and antineoplastic drugs.

# <u>Student Learning Objectives</u>: A student who completes this class will be able to explain:

- (1) the laws regulating the use and dispensing of various types of drugs
- (2) the mechanisms by which drugs exert their actions
- (3) the differences associated with the administration of drugs by various routes
- (4) the variations in absorption, distribution, metabolism, and excretion of different drugs
- (5) the factors that determine the dose of the drug used
- (6) the types of adverse reactions associated with different drugs and how their toxicities are evaluated
- (7) the clinical indications for the therapeutic use of different drugs using their respective contraindications
- (8) the possible interactions with other medications or health considerations.
- (9) the characteristics of classes of drugs, and the differences between drugs within that class and between different classes.
- (10) the biological variations in response seen in the general population to drugs
- (11) how to use a patient history chart to anticipate drug complications and drug interactions

**Exit Skills:** Upon completion of this course the student will have the following skills:

- (1) Read and write a drug prescription using the common abbreviations
- (2) List and explain the major pharmacological actions, and uses associated with drug groups studied.
- (3) Use a patient history chart to anticipate drug complications, an drug interactions or other health conditions.
- (4) State the American Heart Association guidelines for antibiotic prophylaxis and be knowledgeable and confident in consultation with dental and medical practitioners regarding the pre-medication of medically compromised dental patients.

# **Required Text & Supplies:**

Steven A. Fink; <a href="Pharmacology Lecture Outline">Pharmacology Lecture Outline</a>; 2012

at least 5 Scan-Trons (#882) and soft lead pencil (no. 1) with a good eraser

## **Recommended Texts:**

Elena Bablenis Haveles; <u>Applied Pharmacology for the Dental Hygienist</u> (6<sup>th</sup> ed); Mosby Elsevier; 2011 [ISBN 978-0-323-06558-0]

Richard L. Wynn, et. al; <u>Drug Information Handbook for Dentistry</u>; 16th ed; Lexi-Comp, Inc; 2009 [ISBN: 978-1-59195-269-5]

Physician's Desk Reference; Medical Economics Co.; [ISBN: 0-87489-878-1]

#### **Useful Web-Sites:**

# www.professorfink.com

http://www.rxlist.com/

http://medlineplus.gov/

http://www.aafp.org/

http://www.itmonline.org/arts/herbdrug2.htm

http://www.mayoclinic.com/

http://www.ada.org/

http://www.adha.org/

http://www.pharmacy.ca.gov/

# <u>Lecture Examination Schedule (Tentative):</u>

EXAMINATION 1...... OCTOBER 7
EXAMINATION 2...... NOVEMBER 4
FINAL EXAMINATION..... DECEMBER 9

# **Computation of the Lecture Course Grade:**

All examinations will consist of objective-type questions (ie., True/False; Multiple Choice; and Matching) and some short-answer questions. You will be expected to provide a SCAN-TRON 882 (available at the bookstore) and a soft lead pencil (no. 1 or no. 2) for each examination for computer scoring.

### **Grading Policy:**

90 - 100% A
79 - 89% B
65 - 78% C
50 - 64% D
below 50% F

# **Attendance Policy:**

Attendance will be taken.

You are responsible for information, exam announcements, date changes, etc. presented in class, whether or not you are present

# Withdrawal from Class:

<u>You are responsible</u> for your credit and enrollment status. Any student withdrawing from class must inform the admissions office of this decision. <u>Students failing to follow the correct procedure for withdrawals will receive a grade of "F" for the semester. No withdrawals are permitted after Friday, November 19. (see Schedule, page 1).</u>

### **Cheating/Academic Dishonesty:**

Each student is expected to do his/her <u>own</u> work on all assignments, reports, examinations, etc. <u>CHEATING ON AN EXAM WILL RESULT IN AN "F" FOR THE COURSE</u>.

Here is a list of some actions that are considered cheating:

#### NO TALKING DURING THE EXAM.

#### KEEP YOUR EYES ON YOUR OWN EXAM.

# USING NOTES OF ANY KIND (ON CARDS, STRIPS OF PAPER, DESK TOP, ETC.) DURING AN EXAM IS <u>NOT PERMITTED</u>.

Showing a fellow student your exam, or passing information in any way is <u>not</u> permitted.

Place your answer sheet(s) directly in front of you.

If you have a question, quietly walk up to the instructor and whisper your question.

Translation dictionaries are not permitted.

Changing the answers on a returned Exam & claiming it was scored wrongly.

All of these demonstrate a lack of Honesty & Integrity which is Essential in all Health Care Professions (& in fact, in all jobs, all relationships, & in all Areas of Life.)

# TENTATIVE SCHEDULE OF TOPICS (schedule subject to change)

WEEK	DAY	DATE	LECTURE TOPIC	TEXT
1	S	AUG 31	Introduction Principles of Pharmacology Drug Legislation Prescription Writing	chap 1 chap 1 chap 1 chap 4 APPENDIX C
2	S	SEPT 7	Pharmacokinetics	chap 2 APPENDIX I chap 25
			Pharmacodynamics Adverse Drug Reactions Use of Health Questionnaires	chap 1 chap 3
3	S	SEPT 14	Pharmacokinetics	chap 2 APPENDIX I chap 25
			Pharmacodynamics Adverse Drug Reactions Use of Health Questionnaires	chap 1 chap 3
4	S	SEPT 21	Adverse Drug Reactions Review of the Nervous System	chap 3 chap 5
5	S	SEPT 28	Autonomic Drugs Drug Dosages & Calculations	chap 5
6	S	OCT 5	EXAMINATION 1 Autonomic Drugs	chap 5
7	S	OCT 12	Cardiovascular Drugs	chap 15

# TENTATIVE SCHEDULE OF TOPICS (continued)

WEEK	DAY	DATE	LECTURE TOPIC	TEXT
8	S	OCT 19	Respiratory Drugs	chap 22
			Gastro-Intestinal Drugs	chap 22
			Anti-Diabetic Drugs & Hormones	chap 20
9	F	OCT 26	Emergency Drugs	chap 23
			Sedative-Antianxiety Drugs	chap 11
			Antidepressants	chap 17
			Anticonvulsants	chap 17
			Corticosteroids	chap 19
			Non-Narcotic Analgesics & NSAIDs	chap 6
10	F	NOV 2	EXAMINATION 2	
			Narcotic Analgesics	chap 7
11	F	NOV 9	Local Anesthetics	chap 10
			Anti-Infective Agents (Antiseptics)	
			Antibiotics	chap 8
12	F	NOV 16	Antibiotics	chap 8
			Antifungal & Antiviral Agents	chap 9
			Oral Conditions & their Treatment	chap 14
13	F	NOV 23	NO CLASS:	
			Thanksgiving	
14	F	NOV 30	Hormones	chap 20
			Antineoplastic Drugs	chap 21
			Nitrous Oxide: Conscious Sedation	chap 12
15	F	DEC 7	FINAL EXAM	