Biology 208

PHARMACOLOGY

Course Description: 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 antiviral 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.

Student Learning Objectives: 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; Pharmacology Lecture Outline; 2014

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

Recommended Texts:

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

Richard L. Wynn, et. al; Drug Information Handbook for Dentistry; 18th ed; Lexi-Comp, Inc; 2013

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/
Lecture Examination Schedule (Tentative):

EXAMINATION 1................................................. JUNE 25 (Wed)
EXAMINATION 2............................................... JULY 9 (Wed)
FINAL EXAMINATION........................................... JULY 23 (Wed)

Computation of the Lecture Course Grade:

2 Semester Examinations (Averaged)........... 60% of Course Grade
Final Examination............................................ 40% of 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:

**You are responsible** for your credit and enrollment status. Any student withdrawing from class must inform the admissions office of this decision. **Students failing to follow the correct procedure for withdrawals will receive a grade of "F" for the semester.** No withdrawals are permitted after Thursday, July 17. (see Schedule, page 1).

Cheating/Academic Dishonesty:

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

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 NOT PERMITTED.**

Showing a fellow student your exam, or passing information in any way is not 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.)
<table>
<thead>
<tr>
<th>WEEK</th>
<th>DAY</th>
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<th>LECTURE TOPIC</th>
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<tr>
<td>1</td>
<td>M</td>
<td>JUNE 16</td>
<td>Introduction, Principles of Pharmacology, Drug Legislation, Prescription Writing, Pharmacokinetics</td>
<td>chap 1, chap 1, chap 1, chap 4 APPENDIX C chap 2 APPENDIX I chap 25</td>
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<td>W</td>
<td>JUNE 18</td>
<td>Pharmacodynamics, Adverse Drug Reactions, Use of Health Questionnaires, Adverse Drug Reactions, Review of the Nervous System</td>
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<td>M</td>
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<td>Autonomic Drugs, Drug Dosages &amp; Calculations</td>
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<td>JUNE 30</td>
<td>Cardiovascular Drugs</td>
<td>chap 15</td>
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<td>W</td>
<td>JULY 2</td>
<td>Respiratory Drugs, Gastro-Intestinal Drugs, Anti-Diabetic Drugs &amp; Hormones</td>
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