UNIVERSITY OF FLORIDA

COLLEGE OF NURSING

COURSE SYLLABUS

Fall 2015

COURSE NUMBER NUR 3145 – Section 05D5

COURSE TITLE Pharmacology for Nursing

CREDITS 3

PLACEMENT BSN Program: 2nd Semester Upper Division

PREREQUISITES NUR 3129 Pathophysiology and Psychopathology

NUR 3138 Systems of Care 1: Wellness Promotion and Illness Prevention

COREQUISITES NUR 3197 Introduction to Genetics and Genomics

# FACULTY Bryan A. Weber, PhD, ARNP

Office hours: by appt

(e-mail my assistant Ms. Reid for an appt. reidka@ufl.edu)

HPNP 4223

Phone: (352) 273-6327

Fax 352-294-8101

[bweber@ufl.edu](mailto:bweber@ufl.edu)

COURSE DESCRIPTION The purpose of this course is to examine pharmacotherapeutic agents used in the treatment of illness and the promotion, maintenance and restoration of wellness in diverse individuals across the lifespan. Emphasis is on the principles of pharmacokinetics, pharmacodynamics and pharmacogenetics in the treatment of selected illnesses. The focus is on concepts of safe administration and monitoring the effects of pharmacotherapeutic agents.

COURSE OBJECTIVES Upon completion of this course, the student will be able to:

1. Describe the general principles of pharmacotherapeutics, pharmacokinetics, pharmacodynamics, and pharmacogenetics/genomics in wellness promotion and illness prevention and treatment.
2. Describe principles of safe administration of medications.
3. Contrast the principles of pharmacotherapeutics across the lifespan including the effects of race, gender and, ethnicity.
4. Investigate technologies and systems used for medication administration.

5. Discuss legal and ethical parameters of medication administration.

COURSE SCHEDULE

Mondays 4:00-7:00pm Room 1404

E-Learning in Canvas is the course management system that you will use for this course. E-Learning in Canvas is accessed by using your Gatorlink account name and password at <https://lss.at.ufl.edu/>. There are several tutorials and student help links on the E-Learning login site. If you have technical questions call the UF Computer Help Desk at 352-392-HELP or send email to [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).

It is important that you regularly check your Gatorlink account email for College and University wide information and the course E-Learning site for announcements and notifications.

Course websites are generally made available on the Friday before the first day of classes.

TOPICAL OUTLINE

1. General principles of pharmacotherapeutics, pharmokinetics, pharmacodynamics, and pharmacogenetics/genomics.
2. Medication calculation and administration concepts:
3. Safety
4. Technology and systems
5. Education
6. Drug categories and prototypes
7. Pharmacotherapeutics problem solving for common acute and chronic health problems across systems including drug administration and monitoring for therapeutic responses.
8. Adverse drug reactions and appropriate interventions.

6. Drug interactions based on selected drug categories including drug-drug interactions, drug food interactions, drug-ethanol/tobacco interactions and drug-environmental interactions.

7. Client education and adherence.

8. Economic implications of drug management on client’s lifestyle.

9. Implications of client's cultural health beliefs and practices on drug monitoring and client adherence.

10. Legal and ethical parameters

TEACHING METHODS

Lecture, class discussion, written materials, and development & presentation of case studies.

LEARNING ACTIVITIES

Readings, participation in discussion, case study analysis, and study questions.

EVALUATION METHODS/COURSE GRADE CALCULATION

Four examinations are each 25% of total grade. Examinations will be cumulative.

MAKE UP POLICY

There is no opportunity to make up a missed examinations. In the case of a missed examination, a zero will be entered as the grade and included in the calculation of the final grade.

GRADING SCALE/QUALITY POINTS

A 95-100 (4.0) C 74-79\* (2.0)

A- 93-94 (3.67) C- 72-73 (1.67)

B+ 91- 92 (3.33) D+ 70-71 (1.33)

B 84-90 (3.0) D 64-69 (1.0)

B- 82-83 (2.67) D- 62-63 (0.67)

C+ 80-81 (2.33) E 61 or below (0.0)

\* 74 is the minimal passing grade

For more information on grades and grading policies, please refer to University’s grading policies: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

REQUIRED TEXTBOOKS\*

Rosenjack-Burchum, J., & Rosenthal, L. D. (2016). Lehne’s pharmacology for nursing care. St. Louis: Elsevier Mosby.

Pagana, K. D., & Pagana, T. J. (2013). Mosby’s diagnostic & laboratory test reference. St. Louis: Elsevier Mosby

\*Note – A drug guide of your choice is required in this course. There are several good drug guides available. Do not purchase a drug guide until after class discussion on the features and benefits of various drug guides are discussed. Thus, you will be informed to purchase the guide that works best for you.

RECOMMENDED TEXTBOOK & OTHER RESOURCES

Giangrasso, A. P., & Shrimpton, D. M. (2013). Dosage calculations: A multi-method approach. Boston: Pearson.

University of Florida College of Medicine *Florida Physician* Fall 2008 Retrieved from http://floridaphysician.med.ufl.edu/2008/12/features/how-one-boy-changed-the-college-of-medicine/

University of Florida College of Pharmacy *Center for Drug Interaction Research and Education* Retrieved from http://www.druginteractioncenter.org/

WEEKLY CLASS SCHEDULE

|  |  |  |
| --- | --- | --- |
| DATE | TOPIC/EVALUATION | ASSIGNMENT |
| 24 Aug | **PART I Overview of Pharmacology**  Introduction | Syllabus, Lehne’s preface, Chapters 1 -4 |
| 31 Aug | Drug classes, actions & therapeutics  Drug nomenclature  Preparing and administration of drugs  Safety and responsibility  Interactions  Drug-drug  Drug-food  Drug toxicity  Medication errors  Individual variations in drug responses  Life span considerations | Chapters 5-11 |
| 14 Sep | **PART II Math in Pharmacology**  Abbreviations  Medical systems of weights and measures  Dosage calculations including IV solutions  Safety and responsibility | Refer to recommended textbook or other resources |
| 21 Sep | **EXAM I** |  |
| 28 Sep | **PART III PNS Drugs**  Cholinergic agents  Adrenergic Agents | Chapters 12 - 19  Canvas lecture |
| 5 Oct | **PART IV CNS Drugs** |  |
|  | Neurodegenerative Disorders  Neurologic agents  Pain  Psychotherapeutic agents  Drug Abuse | Chapter 20 - 36  (Chapter 37-40)\* |
| 12 Oct | **EXAM II** |  |
| 19 Oct | **PART V Cardiopulmonary Drugs**  Antihypertensives  Heart Failure  Antidysrhythmics  Angina  Anti-platelets, anti-coagulants, thrombolytics  Cholesterol and triglyceride prophylactic agents  Hemophilia  Anemia & Hematopoietic agents  Asthma  COPD  Rhinitis, cough & colds | Chapter 43 – 56  Chapters 76 -77 |
| 26 Oct | **PART VI Fluid & Electrolyte Drugs**  Diuretics  Volume & ion content of body fluids | Chapter 41 & 42 |
| 2 Nov | **EXAM III** |  |
| 9 Nov | **Part VII Gastrointestinal Drugs**  Peptic Ulcer Disease  Laxatives  Constipation | Chapters 78 – 80 |
| 16 Nov | **PART VIII Endocrine Disorders**  Diabetes  Thyroid  Hypothalamic  Pituitary | Chapters 57-60  (Chapters 61-66) |
| 23 Nov | **Part IX** **Anti-inflammatory**  **Anti-allergic; Bone & Joint**  Rheumatoid arthritis  Gout  Bone mineralization  Immunizations  Antihistamine  Glucocorticoids | Chapters 67-72  Chapters 73-75 |
| 30 Nov | **Part X Chemotherapy**  Infectious disease  Parasitic Diseases  Cancer | Chapters 83-103\*\* |
| 7 Dec | **Part XI Miscellaneous Drugs & Toxicology**  Eye, Ear, Skin  Complimentary & Alternative therapies  Poisoning  Weapons of Biologic, Radiologic, and Chemical terrorism | Chapters 104 – 108\*\*  Chapters 109-110\*\* |
|  | **EXAM IV** |  |

\*This material will not be covered in class but is required reading

\*\*Student case study presentations

University and College of Nursing Policies:

Please see the College of Nursing website for a full explanation of each of the following policies - <http://nursing.ufl.edu/students/student-policies-and-handbooks/course-policies/>.

Attendance

Academic Honesty

UF Grading Policy

Accommodations due to Disability

Religious Holidays

Counseling and Mental Health Services

Student Handbook

Faculty Evaluations

Student Use of Social Media

**EXTRA CREDIT**

If you decide to take advantage of this extra credit opportunity you must supply Dr. Weber with Scientific Evidence that supports your answer. Be sure you pay attention in the theory and research course where you will learn about what constitutes scientific evidence.

The following scenario text was copied directly from <http://www.webmd.com/lung/copd/safety-tips-for-using-oxygen> on 7 August 2015 --where WebMD references a secondary source “WebMD Medical Reference from the COPD Foundation.”

Scenario:

“Do not use oil, grease or petroleum-based products on the [oxygen] equipment. Do not use it near you while you use oxygen. These materials are highly flammable and will burn readily with the presence of oxygen. Avoid petroleum-based lotions or creams, like Vaseline, on your face or upper chest. Check the ingredients of such products before purchase. If a [skin](http://www.webmd.com/skin-problems-and-treatments/picture-of-the-skin) moisturizer is needed, consider using cocoa butter, aloe Vera or other similar products. For lubrication or rehydration of dry nasal passages, use water-based products. Your pharmacist or care provider can suggest these.”

**Assignment:** Provide scientific evidence that ***DIRECTLY*** supports or refutes the claim that Vaseline or similar petroleum products should not be used by the patient when receiving O2.

**Due Date:** All responses must be received no later than 3 PM on 9 November 2015. Late responses (even 1 minute late) will not be accepted.

**Credit:** If you satisfy the assignment 5 points will be added to your final grade for the course. No partial credit will be given.

***Good Luck!!***