WILMINGTON UNIVERSITY
COLLEGE OF HEALTH PROFESSIONS
MSN PROGRAM
GENERIC SYLLABUS

COURSE NUMBER: MSN 7703
COURSE TITLE: ADVANCED PHARMACOLOGY
PREREQUISITE: MSN 6603

I. COURSE OBJECTIVES:

This course provides students with the skills to:

1. Characterize classifications of medications according to actions and therapeutic applications.
2. Apply concepts of pharmacokinetics and pharmacodynamics to clinical practice.
3. Distinguish expected side effects, adverse drug reactions and allergic reactions.
4. Recognize nutritional factors affecting efficacy and choice of pharmaceutical agents.
5. Identify potential and actual drug interactions.
6. Determine dosage and route of administration for drugs, considering age, weight, and health status.
7. Evaluate appropriate parameters for monitoring client responses to specific drugs.
8. Develop teaching and counseling strategies which promote adherence and a positive therapeutic response.
9. Utilize critical thinking skills in class discussion, written work, online assignments, and oral/visual/voice-enhanced presentations.
II. SUPPLEMENTAL OBJECTIVES

1. **Characterize classifications of medications according to actions and therapeutic applications.**
   Selecting, prescribing, and monitoring pharmacological treatment with considerations to drug classifications, actions, and therapeutic applications. Selected systems: cardiovascular, respiratory, musculoskeletal, central nervous system, gastrointestinal, and the endocrine systems along with antimicrobial classifications.

2. **Apply concepts of pharmacokinetics and pharmacodynamics to clinical practice.**
   - Pharmacodynamics principles
   - Pharmacokinetics principles
   - Pharmacoeconomics

3. **Distinguish expected side effects, adverse drug reactions and allergic reactions.**
   Factors that differentiate between side effects, idiosyncratic effects and allergic reactions
   Prescriptive authority

4. **Recognize factors nutritional affecting efficacy and choice of pharmaceutical agents.**
   Efficacy evidence
   Selected nutritional factors including popular herbal remedies
   Common pharmacological agents that interact with specific foods

5. **Identify potential and actual drug interactions.**
   Red flags to monitoring drug interactions: selected classifications and special populations

6. **Determine dosage and route of administration for drugs, considering age, weight, and health status.**
   Overview of dosage calculation considerations for selected populations
   Route of administration considerations with respect to age, weight, and health status
   Special considerations in pediatrics, geriatrics, pregnancy and breastfeeding.

7. **Evaluate appropriate parameters for monitoring client responses to specific drugs.**
   The therapeutic experiment
   Laboratory testing dimension
   Follow-up monitoring strategies

8. **Develop teaching and counseling strategies that promote adherence and positive therapeutic response.**
   Optimizing adherence strategies
   Challenges and barriers in meeting success
   Legal aspects of pharmacological therapy
9. **Utilize critical thinking skills in class discussion, written work, online assignments, and oral/visual/voice-enhanced presentations**
   - Utilization of appropriate informational resources.
   - Value writing and speaking skills.
   - Integrate course concepts into all assignments