NRSG 336: Nursing Pharmacotherapeutics
Credits: 3 (2 lecture, 1 college laboratory)
Semesters Offered: F, Sp, Su
Prerequisites: CHMY 121, CHMY 123, NUTR 221, NRSG 238, NRSG 258

Course Description: The focus of this course is to examine pharmacotherapeutics in nursing practice. Clinical application of pharmacological and pathophysiologic principles will be integrated. Physical, psychological, social, and cultural factors; age related variations; and alternative therapies will be highlighted.

Course Objectives: The student will:

1. Integrate principles of pharmacology and pathophysiology in clinical nursing decisions. across the lifespan (TO1)
2. Explain the pharmacotherapeutics of selected drug classifications on the body. (TO1)
3. Safely demonstrate the professional nurse’s role, skills, and responsibilities in pharmacological management, including information technology. (TO 1, 5, 8, 10)
4. Examine the influence of physical, psychological, social, genetic, and cultural factors on pharmacotherapeutics. (TO 4, 7)
5. Examine current issues in pharmacotherapeutics. (TO 1)
6. Examine research as it applies to pharmacotherapeutics and pharmacological management. (TO1, 2, 3)
7. Students will demonstrate behaviors that are congruent with the MSU Code of Conduct, CON Student Handbook, ANA Code of Ethics, Scope and Standards of Practice, and Social Policy Statements in all class related interactions. (FO 7; TO 3)

Recommended Content and Concepts:
* Content is listed as pertains to each course objective.
1. History of pharmacology
   Pharmacotherapeutics, Pharmacokinetics, Pharmacodynamics, Pharmaceutics
   Nomenclature, drug classifications
   Clinical responses to medications, desired and undesired
   Contraindications, Precautions, Drug, food and environment interactions
   Laboratory values and tests
   Application of pharmacotherapeutics and pathophysiology in clinical settings
2. Clinical aspects of pharmacology by body system approach
   -CNS (including psych)
   -ANS
   -Cardiovascular
   -Renal
   -Endocrine
   -Respiratory
- Gastrointestinal
- Immune/Hematologic
- Antimicrobial
- Reproductive
- Sensory
- Neoplastic
- Fluid/Electrolyte
- Nutritional/Metabolic (minerals and vitamins)
- Diagnostic
- Toxicology
- Antiseptics, Disinfectants and Sterilants

Evaluation of therapeutic/desired effects; side, adverse, toxic effects; drug, food, environmental interactions

3. Nursing process (focus on assessment and evaluation that occurs prior, during and after administration)
   Teaching
   Five rights - adherence
   Documentation, Communication, Calculations
   Administration
   Settings
   Responsibilities and accountability
   Delegation, Legal, Ethical, Safety
   Application of pharmacology to nursing practice
   Collaboration with other health care professionals
   Ongoing learning
   Scope of practice
   Monitor for complications of IV therapy
   Reporting and decreasing medication errors
   Review of medications for therapeutic use and interactions
   Technical skills: PO, SC, IM, IV medication administration

4. Cultural, ethnic, genetic, social, environmental, spiritual factors
   Patient compliance
   Physical and Psychological status
   Life span (esp. Pediatrics and elderly)
   Over-the-counter treatment
   Complementary and self treatment

5. Legal, safety, ethical, moral (values) issues
   Complementary / Alternative Care
   Insurance
   Legislation
   Government regulatory bodies
   Global issues
   Controlled substances
   Cost-benefit analysis (i.e. trade vs. generic and C&S reports)
   Clinical trials
   Poly-pharmacy
Alterative funding sources for patients medications
Standardization
Medication quality
Technology

6. Clinical trials
   Evidence based research
   Current practice issues
   Drug efficacy and efficiency
   Treatment protocols
   Pharmacotherapeutics
   Safe Administration
   Utilize resources about pharmacological information

Suggested Student Learning Activities:

- papers and reports
- tests and quizzes
- patient interviews
- teaching plans
- literature review
- Internet searches
- workshops
- discussion
- videos

- reading
- study guides
- case studies
- student presentations
- guest speakers
- cooperative learning
- small groups
- chart medication reviews
- role playing
- tour of pharmacy and research facilities
- observe medication administration and dispensing practices
- return demonstrations
- administration and evaluation of medications via various routes to include IV
- values clarification related to pharmacology issues (i.e. substance abusing mothers, parents not treating children, poor pain management for drug abusers)

Approved by UAAC: April 14, 2014
Approved by Faculty: May 1, 2014