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. (T1)
2. Explain the pharmacotherapeutics of selected drug classifications on the body. (T1)
3. Safely demonstrate the professional nurse’s role, skills, and responsibilities in pharmacological management, including information technology. (F3, T1, 5, 8, 10)
4. Examine the influence of physical, psychological, social, genetic, and cultural factors on pharmacotherapeutics. (T 4, 7)
5. Examine current issues in pharmacotherapeutics. (F4, T 1)
6. Examine research as it applies to pharmacotherapeutics and pharmacological management. (F4,T1, 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. (F7; T 3)

Recommended Content and Concepts:

Introduction to Pharmacotherapeutics:

- Brief history of pharmacology
- Principles of Pharmacokinetics and Pharmacodynamics
- Nomenclature, drug classifications
- Clinical responses to medications, desired and undesired, across the lifespan
- Side, adverse & toxic effects
- Drug/food/environment interactions
- Contraindications & Precautions
- Laboratory values and tests

Clinical aspects of pharmacology by body system approach
• CNS (including psych)
• Anesthetic Agents and Analgesics
• PNS
• Cardiovascular/Hematologic
• Renal
• Endocrine
• Respiratory
• Gastrointestinal
• Anti-inflammatory, Antiallergic and Immunologic
• Antimicrobial
• Reproductive
• Fluid/Electrolyte
• Complementary and Alternative Medicine/Supplements

Pharmacology and the Nursing Process

• Pre-administration Assessment (physical and psychological)
• Cultural, ethnic, pharmacogenomics, social, environmental, spiritual factors
• Calculations for PO, IM, and IV medication administration
• Administration including technical skills: PO, SC, IM, IV medication administration
• Five rights/Ten rights
• Adherence to Three Checks
• Documentation and communication
• Evaluation of therapeutic effects during and after administration
• Monitor for complications of IV therapy
• Teaching

Legal, Ethical, Safety

• Scope of practice
• Settings
• Responsibilities and accountability
• Delegation and collaboration
• Reporting and decreasing medication errors
• Costs and Benefits of Drug Therapy
• Polypharmacy
• Legislation and regulation
• Controlled substances
• Contemporary Issues
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: May, 2018
Approved by Faculty: May, 2018