

MONTANA STATE UNIVERSITY
COLLEGE OF NURSING
Master Resource Outline

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

Course Description: The focus of this course is to examine pharmacotherapeutics in nursing practice. Clinical application of pharmacological and pathophysiological 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

Alternative 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