

MONTANA STATE UNIVERSITY - BOZEMAN
COLLEGE OF NURSING
Master Resource Outline

N 337: Nursing Pharmacotherapeutics
Credits: 3 (2 theory, 1 college lab)
Semesters Offered: F, Sp
Prerequisites: CHEM 121, BCHM 122, HDFN 221, N224, N239

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.
2. Explain the pharmacotherapeutics of selected drug classifications on the body.
3. Safely demonstrate the professional nurse's role and responsibilities in pharmacological management.
4. Examine the influence of physical, psychological, social, and cultural factors on pharmacotherapeutics.
5. Examine current issues in pharmacotherapeutics.
6. Examine research as it applies to pharmacotherapeutics and pharmacological management.
7. Demonstrate responsibility and accountability reflecting professional values.

Suggested Course Content -

* 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
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 Learning Activities -

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| Lecture | papers and reports |
| tests and quizzes | patient interviews |
| teaching plans | literature review |
| Internet searches | Workshops |
| Discussion | Videos |
| CIA | 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 January 2005
 Approved by Faculty January 7, 2005