

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: NSG 210

Credits: 5

Course Title: Health Care Concepts I

Course Description: Focuses on care of clients across the lifespan in multiple settings including concepts related to physiological health alterations and reproduction. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part I of II. Lecture 3 hours, Laboratory 6 hours. Total 9 hours per week.

General Course Purpose: The purpose of this course is to introduce competent learner to concepts of nursing practice across the lifespan.

Course Prerequisites and Co-requisites:

Prerequisites: BIO 150 or BIO 205, NSG 152, and NSG 170

Course Objectives:

Upon successful completion of this course, students will be able to:

- Apply principles of patient-centered care across the lifespan.
- Incorporate factors for improvement of client safety for clients across the lifespan.
- Apply clinical judgment when prioritizing the delivery of care to clients with multiple needs and in various clinical settings as related to course concepts.
- Incorporate legal/ethical principles and professional nursing standards in the care of patients across the lifespan.
- Examine the impact of quality improvement processes, information technology and fiscal resources in the provision of nursing care.
- Participate as a member of the health care team in the delivery of nursing care across the lifespan.
- Integrate the principles of pharmacology to the identified concepts for all client populations across the lifespan.
- Integrate pathophysiology and principles of pharmacology in the delivery of client care in a variety of populations.

Major Topics to be Included

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Concepts and Exemplars	Pharmacology
<i>Reproduction Concept</i> • Reproduction principles • Risk factors related to reproductive complications • Prevention of reproductive complications • Reproductive diagnostic testing • Clinical judgment related to reproductive complications Exemplars: Antepartum, Intrapartum, Postpartum, Newborn care and assessment	Uterine stimulants Misoprostol Prostaglandin E2 Beta Adrenergic agonist -Tocolytics (Terbutaline) Opioids Epidural (administration of medication during labor and postpartum) Corticosteroids (betamethasone) RhoGAM Newborn medications: Vitamin K Hepatitis B vaccine Erythromycin ophthalmic ointment
<i>Clotting Concept</i> • Clotting principles • Risk factors related to altered clotting • Prevention of altered clotting • Clotting diagnostic testing • Clinical judgment related to altered clotting Exemplars: Disseminated intravascular coagulation, Postpartum hemorrhage/ placenta previa/ placental abruption, HELLP Syndrome	Methergine Cytotec Hemabate Tranexamic acid Magnesium

Metabolism Concept ● Metabolism principles ● Risk factors related to altered metabolism ● Prevention of altered metabolism ● Metabolism diagnostic testing ● Clinical judgement related to altered metabolism Exemplars: Thyroid/parathyroid dysfunction	Synthetic thyroid hormone (ex. Levothyroxine) Anti-thyroid drugs (ex. Propylthiouracil (PTU)) Potassium Iodine Calcium gluconate Methimazole Radioactive iodine
Gas Exchange Concept ● Gas Exchange principles ● Clinical judgment related to altered gas exchange Exemplars: Cystic fibrosis (across the lifespan), Sick cell and medication induced anemia	Pancreatic Enzymes Bronchodilators Mucolytics Antibiotics CFTR modulators Hydroxyurea Crizanlizumab
Perfusion ● Perfusion principles ● Risk factors related to perfusion alterations ● Prevention of perfusion alterations ● Perfusion diagnostic testing ● Clinical judgment related to perfusion alterations Exemplars: Coronary artery disease, Congestive heart failure	Antianginal (Nitrates) Antilipemic ● Bile acid sequestrants ● Fibrates ● HMG CoA reductase inhibitors ● Nicotinic acid ● Cholesterol absorption inhibitors ● Omega 3 Cardiac glycoside (ex. Digoxin) (and associated reversal agents digoxin immune fab) ASA Beta Blockers Calcium Channel Blockers Thrombolytics Angiotensin Converting Enzyme Inhibitors Angiotensin II Receptor Blockers Calcium Channel Blockers Vasodilators Diuretics (Loop, Potassium Sparing, Thiazide) Morphine Sulfate

Mobility ● Mobility principles ● Risk factors related to mobility alterations ● Prevention of mobility alterations ● Mobility diagnostic testing ● Clinical judgment related to mobility alterations Exemplars: Osteoporosis, osteoarthritis, hip and knee replacement, fractures, amputations	Calcitonin Phosphate Binders (sevelamer) Bisphosphonates (Alendronate) Selective Estrogen Reuptake Modulators (Tamoxifen) Muscle Relaxant (cyclobenzaprine) Benzodiazepines
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