J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: NSG 115 **Credits: 5**

Course Title: Healthcare Concepts for Transition

Course Description:

Focuses on role transition from Licensed Practical Nurse to Registered professional nurse. Incorporates concepts of nursing practice and conceptual learning to promote health and wellness across the lifespan. Uses the nursing process to explore care delivery for selected diverse populations with common and predictable illness. Emphasizes the use of clinical judgement in skill acquisition. Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

General Course Purpose:

The purpose of this course is to begin the transition of the licensed practical nurse to the comprehensive, professional, and complex role and expectations of a registered nurse by introducing and further developing conceptual based approaches to patient care. Completion of the course will result in credits awarded to the LPN for previous education and work experience.

Course Prerequisites and Co-requisites:

Prerequisites: BIO 141, BIO 142, ENG 111, PSY 230, SDV 100; acceptance into the Transition Program.
Co-requisite: NSG 200, BIO 150

Student Learning Outcomes:
Upon completing the course, the student will be able to

a. Demonstrate clinical judgment and evidence-based care related to advanced concepts of fluid and electrolytes, gas exchange, perfusion, metabolism, culture, cellular regulation, infection, and reproduction.
b. Differentiate relevant cues in the care of clients experiencing common, predictable health problems across the lifespan and among different populations and diverse settings.
c. Prioritize safety measures in the care of clients with varied health problems.
d. Demonstrate professional nursing role development and behaviors of the registered nurse.
e. Accurately assess populations at risk for health disparities across the lifespan and from diverse community settings.
f. Develop a teaching plan for individuals or groups experiencing alternations in health.
g. Incorporate principles of pharmacotherapeutic concepts when planning care for patients across the lifespan.

Major Topics to Be Included:

- Clinical Judgment Concept
    - Basis of developing care (ADPIE)
    - Exemplars: care plans, concept maps
- Pharmacotherapeutics Concept
    - Accurate and safe drug dosage calculations
    - How to learn drugs

    - Understanding of drug implications
    - Pharmacology: Lifespan dosage, Drug terminology, Kinetics, Legal/Ethical, Herbal, Teratogenic, Constipation (Laxatives, Bulk-forming agents, Stool Softeners, Osmotic laxatives), Incontinence (Anticholinergic, Antispasmodic), Diarrhea (Bismuth absorbent, Probiotics, Antimotility, Opioid-like, Antispasmodic), Sleep (Benzodiazepines and reversal, Sedative/hypnotics-ex. Zolpidem, Melatonin), Pain (Opioid and reversal agents, Aspirin, Acetaminophen and reversal agents, Non-Steroidal Anti-inflammatory Drugs, Cox 2 Inhibitors), Muscle Relaxant/Malignant hyperthermia management (Dantrolene).
    - Exemplars: medication, dosage
- Fluid & Electrolytes Concept
    - Pharmacology: Isotonic, Hypertonic, Hypotonic, Sodium, Magnesium, Potassium, Phosphorus, Calcium
    - Exemplars: specific electrolyte imbalances, patient receiving infusions
- Gas Exchange Concept
    - Pharmacology: Decongestants (ex. Pseudoephedrine, phenylephrine), Expectorants (ex. Guaifenesin), Antitussives (ex. Benzonatate), Corticosteroids (ex. Prednisolone), Sympathomimetic drugs (ex. Dopamine, dobutamine, epinephrine), Anticholinergics (ex. Benztropine), B-Adrenergic agonist drugs (ex. Albuterol, salmeterol), Xanthine's (ex. Theophylline), Colony Stimulating Factors (ex. Neupogen), Mast cell stabilizers (ex. Loratadine), Methods of administration (Inhalers), Bronchodilators (ex. Albuterol)
    - Exemplars: asthma-child, COPD-adult, anemias, post-surgical atelectasis, viral/bacterial bronchitis
- Perfusion Concept
    - Pharmacology: Alpha Adrenergic blockers, B- Adrenergic blockers (ex. Atenolol, metoprolol), Angiotensin Converting Enzyme Inhibitors (ex. Lisinopril), Angiotensin II Receptor Blockers (ex. Losartan, valsartan), Calcium Channel Blockers (ex. Diltiazem, Cardizem), Vasodilators (Nitrates), Diuretics (Loop, Potassium sparing, Thiazide), Magnesium Sulfate
    - Exemplars: hypertension, peripheral vascular disease, preeclampsia, erectile dysfunction
- Metabolism Concept
    - Pharmacology: Multivitamin, Collagen, Protein, Fat- and Water-Soluble Vitamins, Insulin and deliver methods (SC, pumps, etc.), Glucagon, Biguanides (ex. Metformin), Thiazolidinedione (ex. Rosiglitazone, pioglitazone), Sulfonylurea (ex. Chlorpropamide, glipizide), Serotonin 2 inhibitor, DPP4 inhibitor (ex. Sitagliptin), GLP-1, Alpha glucoside inhibitor (ex. Acarbose), Meglitinides
    - Exemplars: diabetes across the lifespan, gestational diabetes
- Cellular Regulation Concept
    - Pharmacology (Part I of II_: Selective estrogen receptor modulator (Tamoxifen), Disease-Modifying Antirheumatic Drugs (DMARDS)-(ex. Methotrexate), Alkylating Agents (cisplatin), Anti-tumor (Bleomycin, Dactinomycin), Anti-emetics: 5-HT3 Antagonist-ondansetron, Prokinetic agents-metoclopramide, Cannabinoids, and Tricyclics-promethazine;
    - Pharmacology (Part II of II): Chemotherapy (safety), Radiation (safety), Miotic Inhibitors (ex. Vincristine), Taxanes (ex. Abraxane), Biologic Response Modifiers (Interferon, Interleukin), Colony Stimulating Factors (ex. Filgrastim), Erythropoiesis-stimulating agents (Epoetin alpha), Gene therapy, Microtubule inhibitor (Docetaxel)
    - Exemplars: breast cancer, leukemia-child, colon cancer
- Reproduction Concept

    - Pharmacology: Uterine stimulants, Misoprostol, Prostaglandin E2, Beta Adrenergic agonist -Tocolytics (Terbutaline), Opioids, Epidural (administration of medication during labor and post-partum), Corticosteroids (betamethasone), RhoGam, Estrogen, Progesterone, Contraceptives, Testosterone, Phosphodiesterase, Routes of administration for contraceptive devices, Spermicides; Newborn medications: Vitamin K, Hepatitis B vaccine and Erythromycin ophthalmic ointment
    - Exemplars: antepartum, menopause
- Infection Concept
    - Describe infectious process (Types of infection, Spread of infection, Healing)
    - Define risk factors and identify prevention strategies
    - Pharmacology: Glycopeptide antibiotics (ex. Vancomycin), Sulfonamides, Penicillin, Broad Spectrum, Peak and Trough Levels, Aminoglycoside (ex. Gentamycin, streptomycin, neomycin), B-lactam antibiotics-(Cephalosporins), Macrolide antibiotics (ex. Azithromycin, clarithromycin), Fluoroquinolone (Ciprofloxacin), Tetracycline (ex. Doxycycline), Antifungals (Fluconazole)
    - Exemplars: methicillin-resistant staphylococcus aureus, clostridium difficile, urinary tract infections, pneumonia, otitis media, meningitis, respiratory syncytial virus, sexually transmitted infections
- Patient Education/ Culture/ Healthcare Disparities Concept
    - Exemplars: diabetes education (type 1/type 2/gestational), pre-operative teaching, cultural preferences in situations across the lifespan, sexual orientation, homelessness, veterans, socioeconomic status

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