# COURSE OUTLINE: ENP103 - PHARMACOLOGY I

Prepared: Stephanie Collins, BN, RN
Approved: Bob Chapman, Chair, Health

| | |
|---|---|
| **Course Code: Title** | ENP103: PHARMACOLOGY I |
| **Program Number: Name** | 3044: ENHANCED PRACTICE |
| **Department:** | PRACTICAL NURSING |
| **Academic Year:** | 2023-2024 |
| **Course Description:** | The focus of this course is to review and update pharmacological knowledge, interventions, and medication administration. Students will be building on and applying previous pathology knowledge throughout the course. Learners will study the different categories of medications, their actions, uses, adverse reactions, and nursing implications. This course will also provide an overview of complementary therapies. |
| **Total Credits:** | 4 |
| **Hours/Week:** | 4 |
| **Total Hours:** | 60 |
| **Prerequisites:** | There are no pre-requisites for this course. |
| **Corequisites:** | There are no co-requisites for this course. |
| **This course is a pre-requisite for:** | ENP110, ENP114, ENP115 |
| **Vocational Learning Outcomes (VLO's) addressed in this course:**<br>**Please refer to program web page for a complete listing of program outcomes where applicable.** | **3044 - ENHANCED PRACTICE**<br>VLO 1 Conduct comprehensive assessments to plan individualized care supporting health promotion and disease prevention in complex and non-routine patient environments.<br>VLO 2 Integrate evidence-informed research, theory, and critical inquiry within the context of the Canadian health-care system to inform nursing practice and advance clinical judgement in the acute care setting.<br>VLO 3 Model personal and professional responsibility, accountability, self-regulation, and ethical practice when caring for clients and their families to meet Canadian nursing regulatory standards, practices, and legislation.<br>VLO 4 Communicate effectively with diverse populations and the healthcare team to form partnerships and improve health outcomes for individuals, families, groups and communities.<br>VLO 5 Integrate and promote best practices and approaches in relation to the gerontological population within the Canadian healthcare system to plan and deliver nursing care in the acute care setting.<br>VLO 10 Advocate for client, self and the nursing profession by implementing strategies to provide safe and quality nursing care in the acute care setting.<br>VLO 11 Integrate principles and philosophy of end of life care to support the client and their families through the experience of death and dying. |

| | |
|---|---|
| **Essential Employability Skills (EES) addressed in this course:** | EES 3 Execute mathematical operations accurately.<br>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. |
| **Course Evaluation:** | Passing Grade: 50%,<br><br>A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation. |
| **Books and Required Resources:** | Lehne`s Pharmacology for Nursing Care by Burcham, & Rosenthal<br>Publisher: Elsevier Edition: 11th<br>ISBN: 9780323825221<br><br>Gray Morris` Calculate with Confidence by Killian<br>Publisher: Elsevier Edition: 2nd Canadian<br>ISBN: 9780323695718 |

**Course Outcomes and Learning Objectives:**

| Course Outcome 1 | Learning Objectives for Course Outcome 1 |
|---|---|
| Students will be build on previous pharmacology knowledge and will study the different categories of medications, their actions, uses, adverse reactions, and nursing implications. Additionally, students review the pathology of many various conditions treated with medication therapy. Review will learner the following topics: | 1.1 Outline pharmacology basics, including terminology, drug names, therapeutics, pharmacokinetics & pharmacodynamics, and the application of all in nursing practice. Outline units of measurement, dose calculations and medication administration.<br>1.2 Explain drug interactions, adverse drug reactions and medication errors. The process by which to report adverse reactions and medication errors will be obtained. Outline medication calculation, preparation and administration.<br>1.3 Outline basic neuropharmacology and drugs affecting the peripheral nervous system, including cholinergics and adrenergics, and the nursing implications.<br>1.4 Outline drugs affecting the central nervous system and learn about seizure disorders and the nursing implications for these drugs.<br>1.5 Explain the circulatory system in how it regulates cardiac output and arterial pressures. Outline hemodynamic monitoring.<br>1.6 Explain drugs actions on the renin-angiotensin-aldosterone system including ACE inhibitors, angiotensin II receptor blockers, aldosterone antagonists and the nursing implications related to these drugs.<br>1.7 Explain calcium channel blockers and vasodilators, why these drugs are used and the nursing implications for them.<br>1.8 Outline pharmacologic treatments for hypertension, heart failure and dysrhythmias and the nursing implications for each disorder.<br>1.9 Outline drug therapy that help normalize cholesterol levels and treatments for angina.<br>1.10 Outline anticoagulation therapy including antiplatelet and thrombolytic therapies, the indications for these types of drugs and the associated nursing implications.<br>1.11 Explain pathophysiology of asthma & COPD, the drug |

| | | |
|---|---|---|
| | | therapies for each as well as the nursing implications for both diseases.<br>1.12 Outline drugs used for anemias, hemophilia and hematopoietic agents, and the nursing implications associated.<br>1.13 Explain how the different types of diuretics work and the effects they have on fluid balance and electrolyte balance within the body. Explain the nursing implications associated with diuretics.<br>1.14 Outline the drugs affecting volume and ion content of body fluids, as well as the nursing implications for patients on these types of drugs.<br>1.15 Outline the different routes that analgesics can be administered and explain how drugs are used to treat different types of pain.<br>1.16 Outline pathophysiology of diabetes mellitus, the drug therapies for this disease and the nursing implications involved.<br>1.17 Explain mixing insulins and administration of insulins.<br>1.18 Outline medications indicated for use in thyroid disorders, and the nursing implications to be considered.<br>1.19 Explain drugs related to hypothalamic, pituitary, adrenal cortex disorders and the nursing implications involved in each.<br>1.20 Explain the pathogenesis of peptic ulcers, the drugs used to treat them and related nursing considerations. Describe use and abuse of laxatives, and the nursing implications for patients using laxatives.<br>1.21 Outline drug therapy for rheumatoid arthritis, and drugs that affect calcium levels & bone mineralization. Identify the indications for these drugs as well as the nursing implications for patients using these drugs.<br>1.22 Explain the immune system, humoral immunity and cell mediated immunity. Outline immunosuppressant therapy, the indications and the related nursing implications.<br>1.23 Outline antihistamines, their uses, and the nursing implications for them.<br>1.24 Outline NSAID and acetaminophen, the indications for their use and the nursing implications to be aware of.<br>1.25 Explain the basic principles of antimicrobial therapy and differentiate between drugs that weaken the bacterial cell wall, bacteriostatic inhibitors of protein synthesis, sulfonamides, antimycobacterial agents, antifungals, and antivirals. Identify the indications of each type of drug, as well as the nursing implications required.<br>1.26 Outline psychotherapeutic drugs, including antidepressants, anti-anxiety drugs, sedatives, and the nursing implications for each.<br>1.27 Explain the different types of substance use and abuse and the nursing interventions & implications surrounding substance use.<br>1.28 Outline the basics of cancer therapy. Differentiate between cytotoxic and non-cytotoxic drugs, the indications for each, special considerations when administering these drugs and the nursing implications for them. |

| | |
|---|---|
| **Evaluation Process and Grading System:** | |

| Evaluation Type | Evaluation Weight |
|---|---|
| Final Exam | 40% |
| Test #1 | 30% |
| Test #2 | 30% |

| | |
|---|---|
| **Date:** | August 3, 2023 |
| **Addendum:** | Please refer to the course outline addendum on the Learning Management System for further information. |