

**CAREER TECHNOLOGY CENTER OF LACKAWANNA COUNTY
PRACTICAL NURSING PROGRAM**

Course Title:

Pharmacology

Description:

Pharmacology will be introduced in Level II & integrated in every Medical-Surgical Nursing, Family Life & Nutrition course. In addition, special topics will be covered as part of planned clinical conferences

Placements:

Level II, III and IV

Parallel Courses:

Medical Surgical Nursing I, II, III, Family Life Cycle I, II, Nutrition, Nursing Skills II

Total Hours:

60.5

Course Outcomes:

At the end of the level, the student will:

1. Utilize the nursing process in providing pharmacotherapy for the patient
2. Demonstrate skills necessary to provide safe, effective nursing care when administering medications
3. Effectively apply critical thinking & problem solving skills in making decisions about the plan of care for the patient receiving pharmacotherapy
4. Communicate effectively with patients, families, faculty, & members of the healthcare team with regard to the patient receiving pharmacotherapy
5. Demonstrate accountability when caring for the patient receiving pharmacotherapy
6. Utilize educational opportunities for personal & professional growth in provision of care & health promotion of the patient receiving pharmacotherapy
7. Support patients' psychosocial, spiritual, and cultural values receiving pharmacotherapy.

Unit Outline:

Unit 1-Level II

- A. Medications used to combat infection
- B. Analgesic medications
- C. Medications used in the treatment of disorders of the musculoskeletal system
- D. Medications used in the treatment of disorders of the gastrointestinal system
- E. Medications used in the treatment of disorders of the cardiovascular system
- F. Medications related to nutrition

Unit 2-Level III

- A. Psychotropic medications
- B. Medications used in the treatment of disorders of the neurological
- C. Medications used in the treatment of disorders of the urinary system
- D. Anesthetic medications
- E. Medications for contraception
- F. Medications used for labor and birth
- G. Medications used in the treatment of disorders of the sensory system

Unit 3-Level IV

- A. Antineoplastic medications
- B. Medications related to chemical dependency
- C. Childhood immunizations
- D. Medications used in the treatment of disorders of the female reproductive system
- E. Medications used in the treatment of disorders of the male reproductive system
- F. Medicating the pediatric patient
- G. Medications used in the treatment of HIV/AIDS
- H. Medications used in the treatment of disorders of the respiratory system
- I. Medications used in the treatment of disorders of the integumentary system
- J. Medications used in the treatment of disorders of the endocrine system

Requirements:

1. Brown, M. and Mulholland, J. (2016) *Drug Calculations: Process and Problems for Clinical Practice* (10th Ed.) St. Louis, MO: Elsevier
2. Deglin, J., Vallerand, A., Sanoski, C., (2017) *Davis's Drug Guide for Nurses* (15th Ed.) Philadelphia PA.:F.A. Davis
3. Ford, Susan & Roach, Sally (2018) *Roach's Introductory Clinical Pharmacology*, 11th Ed., Kluwer-Lippincott Williams & Wilkins Philadelphia, PA
4. PrepU. NCLEX-PN. Kluwer-Lippincott, Williams & Wilkins. Web. 2009-2019
5. Williams, L., Hopper, P. (2015). *Understanding Medical Surgical Nursing* (5th Ed.) Philadelphia, PA: F.A. Davis.
6. Leifer, G.(2019): *Thompson's Introduction to Maternity and Pediatric Nursing*, (8th Ed)., Philadelphia PA.:W.B. Saunders

Evaluation

The student will attain a minimum average of 80% in tests, quizzes and PrepU. Comprehensive examinations. Student must be present for Final Examination.

***It is the student responsibility to monitor PrepU NCLEX online program and completion. Students are responsible for contacting PrepU technical support for sign on, mobile, and other difficulties. Technical issues are not a valid excuse for incomplete assignments. Students may utilize the Student Resource Computer lab if needed.**

Students are responsible to bring a calculator to each test. The use of a cell phone calculator is not allowed. Each student must have his/her own calculator. No sharing will be allowed. The Drug Guide book is required when taking the Level III and Level IV final exams

Reviewed March 2017
Revised: June 2019

PHARMACOLOGY CLINICAL CONFERENCES

Level II

- | | |
|---|---------|
| 1. Analgesic medications | 3 hours |
| 2. Medications used to combat infection | 3 hours |

Level III and Level IV

- | | |
|---|-----------|
| 1. Anesthetic medications | 3.5 hours |
| 2. Medications related to chemical dependency | 4.5 hours |

Total 14 hours

Final Pharmacology Grade

- | | |
|------------------|-----------------------------------|
| Level II Grade: | Average of quizzes and Final Exam |
| Level III Grade: | Average of quizzes and Final Exam |
| Level IV Grade: | Average of quizzes and Final Exam |

Final Pharmacology Grade: Average of Level II, Level III & Level IV grades

Total Pharmacology Hours

60.5 hours

COURSE TITLE: Pharmacology

STUDENT LEARNING COURSE OUTCOMES	HR	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>The student will:</p> <p>Discuss indications, action, side effects & nursing implications for medications used to combat infection</p>	3	<p>Unit 1 Level II</p> <p>A. Medications used to combat infection:</p> <ul style="list-style-type: none"> • Antiseptics • Disinfectants • Antibacterials • Antivirals • Antifungals <p>B. Analgesic medications:</p> <ul style="list-style-type: none"> • Non-narcotic analgesics • Narcotic analgesics • NSAIDs • Patient-controlled analgesia • Epidural analgesia 	<p>Deglin Brown/Mulholland Ford/Roach Williams</p> <p>Lecture Discussion Handouts</p>	<p>Classroom Conference</p>	<p>Quiz</p>
<p>Discuss indications, action, side effects & nursing implications for analgesic medications</p> <p>Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the musculoskeletal system</p>	3 2.5	<p>C. Medications used in the treatment of disorders of the musculoskeletal system</p> <ul style="list-style-type: none"> • ASA • Non-narcotic analgesics • Narcotic analgesics • NSAIDs • Cox-2 inhibitors • Corticosteroids • Gold Salts/Anti-malarials • Disease modifying anti-rheumatics • Anti-gouts 	<p>Integrated</p>	<p>Conference</p>	<p>Quiz</p>

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STUDENT LEARNING COURSE OUTCOMES	HR	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the cardiovascular system	4.5	<p>D. Medications used in the treatment of disorders of the cardiovascular system</p> <ul style="list-style-type: none"> • Inotropics • Antidysrhythmics • Vasopressors • Vasodilators • Antihypertensives • Anticoagulants • Antiplatelets • Thrombolytics • Hematinics • Antilipids 	<p>Deglin Brown/Mulholland Ford/Roach Williams</p> <ul style="list-style-type: none"> • Lecture • Discussion • Handouts <p>Integrated</p>	Classroom	
Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the gastrointestinal system	2.5	<p>E. Medications used in the treatment of disorders of the gastrointestinal system</p> <ul style="list-style-type: none"> • Antacids • Antiemetics • Laxatives • Antidiarrheals • Antitubercers 	<p>Integrated</p>		
Discuss indications, action, side effects & nursing implications for medications related to nutrition	2.5	<p>F. Medications related to nutrition</p> <ul style="list-style-type: none"> • Water soluble vitamins • Fat soluble vitamins • Macrominerals • Microminerals 	<p>Integrated</p>		<p>Final Exam Unit I End of Level II</p>

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STUDENT LEARNING COURSE OUTCOMES	HR	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>The student will: Discuss indications, action, side effects & nursing implications for psychotropic medications</p>	3	<p>Unit 2 Level III A. Psychotropic medications</p> <ul style="list-style-type: none"> • Anti-anxiety • Anti-depressant • Anti-manic • Anti-psychotic 	<p>Deglin Brown/Mulholland Ford/Roach Williams Lecture Discussion Handouts Prep U Integrated</p>	Classroom	qUIZ
<p>Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the neurological system</p>	4	<p>B. Medications used in the treatment of disorders of the neurological system</p> <ul style="list-style-type: none"> • Anti-seizure agents • Anti-Parkinson agents • Cholinergics • Corticosteroids • Osmotic diuretics • Thrombolytics • Vascular headache suppressants • Anti-platelet agents • Anticoagulants • Immunosuppressants • Immunomodulators • Antispasmodics • Thrombolytics • Vascular headache suppressants 	<p>Integrated</p>		Quiz

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STUDENT LEARNING COURSE OUTCOMES	HR	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the urinary system	2	<p>C. Medications used in the treatment of disorders of the urinary system</p> <ul style="list-style-type: none"> • Diuretics • Electrolytes • Urinary Tract analgesics • Antiseptics • Anti-infectives 	<p>Deglin Brown/Mulholland Ford/Roach Williams</p> <p>Lecture Discussion Handouts Prep U</p>	Classroom	Quiz
Discuss indications, action, side effects & nursing implications for anesthetic medications	3.5	<p>D. Anesthetic medications</p> <ul style="list-style-type: none"> • Preoperative medications • Intraoperative medications <ul style="list-style-type: none"> a. regional anesthesia b. general anesthesia 	<p>Integrated</p> <p>Integrated</p>		Quiz
Discuss indications, action, side effects & nursing implications for medications that affect the reproductive cycle	1.5	<p>E. Medications used for contraception</p> <ul style="list-style-type: none"> • Hormonal • Spermicides 	<p>Integrated</p>		Quiz
Discuss indications, action, side effects & nursing implications for medications used during labor & birth	2.5	<p>F. Medications used for labor & birth</p> <ul style="list-style-type: none"> • Tocolytics • Oxytocics • Prostaglandins 	<p>Integrated</p>		Quiz
Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the sensory system	1.5	<p>G. Medications used in the treatment of disorders of the sensory system</p> <ul style="list-style-type: none"> • Anticholinergics • Cholinergics • Anti-glaucoma agents • Ophthalmic corticosteroids • Ophthalmic anti-infectives • Ophthalmic beta-adrenergic blockers • Miotics • Mydriatics 	<p>Integrated</p>		<p>Final Exam Unit 2 End of Level III</p>

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STUDENT LEARNING COURSE OUTCOMES	HR	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>The student will:</p> <p>Discuss indications, action, side effects & nursing implications for antineoplastic medications</p>	3.5	<p>Unit 3 Level IV</p> <p>A. Antineoplastic medications</p> <ul style="list-style-type: none"> • Alkylating agents • Antibiotics • Antimetabolites • Enzymes • Enzyme inhibitors • Estrogen blockers • Hormones • Hormone-aromatase inhibitors • Immune modifiers • Vinca alkaloids • Miscellaneous 	<p>Deglin Brown/Mulholland Ford/Roach Williams</p> <p>Lecture Discussion Handouts Prep U</p>	<p>Classroom/ Clinical</p>	
<p>Discuss medications related to chemical dependency</p>	4.5	<p>B. Medications related to chemical dependency</p> <ul style="list-style-type: none"> • dependency on prescription medications • dependency on illegal drugs • dependency on alcohol 	<p>Integrated Integrated</p>	<p>Conference</p> <p>Tour Marworth Chemical Dependency Treatment Facility</p>	<p>Quiz</p> <p>Quiz</p>
<p>Discuss indications, action, side effects & nursing implications for childhood immunizations</p>	1.5	<p>C. Childhood Immunizations</p>	<p>Integrated</p>		
<p>Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the female reproductive system</p>	2	<p>D. Medications used in the treatment of disorders of the female reproductive system</p> <ul style="list-style-type: none"> • Ovulation inducing agents • Anti- infectives • Hormones • Corticosteroids • Abortofacients • Emetics • Clotting factors 	<p>Integrated</p>		<p>Quiz</p>

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STUDENT LEARNING COURSE OUTCOMES	HR	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the male reproductive system</p>	2	<p>E. Medications used in the treatment of disorders of the male reproductive system</p> <ul style="list-style-type: none"> ● Anti-infectives ● Meds used to treat cancer of the male reproductive system ● Meds used to treat Benign Prostatic Hypertrophy ● Meds used to treat Erectile Dysfunction 	<p>Deglin Brown/Mulholland Ford/Roach Williams Lecture Discussion Prep U Integrated</p>	Classroom Clinical	
<p>Discuss guidelines for medicating the pediatric patient</p>	3	<p>F. Medicating the pediatric patient</p> <ul style="list-style-type: none"> ● Special considerations, physiological differences ● Appropriate dosage & calculations ● Guidelines 	<p>Integrated</p>		Quiz
<p>Discuss indications, action, side effects & nursing implications for medications used in the treatment of HIV/AIDS</p>	1.5	<p>G. Medications used to treat the patient with HIV/AIDS</p> <ul style="list-style-type: none"> ● Non Nucleoside reverse transcriptase inhibitors ● Nucleoside/nucleotide reverse transcriptase inhibitors ● Highly active antiretroviral therapy ● Protease inhibitors ● Fusion inhibitors ● Integrase inhibitors 	<p>Integrated</p>		

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STUDENT LEARNING COURSE OUTCOMES	HR	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
Discuss indications, action, side effects & nursing implications for medications used in the treatment of disorders of the respiratory system	2.5	H. Medications used in the treatment of disorders of the respiratory system <ul style="list-style-type: none"> ● Oxygen ● Antihistamines ● Decongestants ● Antitussives ● Expectorants/Mucolytics ● Bronchodilators ● Anti-infectives ● Anti-inflammatory agents ● Antileukotrine agents ● Corticosteroids 	Deglin Brown/Mulholland Ford/Roach Williams Lecture Discussion Handout Prep U Integrated	Classroom	Quiz

Bibliography

1. Brown, M. and Mulholland, J. (2016) *Drug Calculations: Process and Problems for Clinical Practice* (10th Ed.) St. Louis, MO: Elsevier
2. Deglin, J., Vallerand, A., Sanoski (2017) *Davis's Drug Guide for Nurses*, (15th Ed.) Philadelphia PA.:F.A. Davis
3. Doenges, Marilyn (2014) *Nursing Care Plans: Guidelines For Individualizing Client Care Across the Lifespan* 9th Ed., Philadelphia, PA.:F.A. Davis
4. Edmunds, M. (2016) *Introduction to Clinical Pharmacology*, 8th Ed., C.V. Mosby, Phila., .
5. Perry, A., Potter, P., Ostendorf, W. (2020) *Nursing Interventions and Clinical Skills*, 7th Ed., St. Louis, MO: Elsevier
6. Ford, Susan & Roach, Sally (2018) *Roach's Introductory Clinical Pharmacology*, 11th Ed., Kluwer-Lippincott Williams & Wilkins Philadelphia, PA
7. Karch, A. (2016) *Focus on Nursing Pharmacology*, 5th Ed., Lippincott Williams & Wilkins, .
8. Leifer, G.(2019): *Thompson's Introduction to Maternity and Pediatric Nursing*, 8th Ed., Mosby , St Louis, MO: Elsevier
9. Williams, L., Hopper, P. (2015). *Understanding Medical Surgical Nursing* (5th Ed.) Philadelphia, PA: F.A.Davis
10. VanLeeuwen, A. and Bladh, M. (2017). *Davis' Comprehensive Handbook of Laboratory and Diagnostic Tests with Nursing* (7th Ed.), Philadelphia, PA: F.A. Davis Co
11. Venes. D., & Taber, C.W. (2017). *Taber's cyclopedic medical dictionary*. Ed.22, illustrated in full color / Philadelphia: F.A. Davis