

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

Course Title: Medical Surgical Nursing I

Unit Title: Cardiovascular, Hematologic and Lymphatic Disorders

Description: This unit presents disorders of the cardiovascular, hematologic, and the lymphatic systems.

Placement: Level II_

Faculty: Michele Boland, MSN, RN

Parallel Courses: Nursing Skills II/ Nutrition/ Medical Surgical Units of__
Musculoskeletal Disorders and Gastrointestinal Disorders

Total Hours: 45

Course Outcomes: At the completion of this course, the student will:

1. Discuss the etiology, incidence, diagnosis, symptoms, medical and nursing management of the patient with cardiovascular, hematologic and lymphatic disorders.
2. Utilize the nursing process to prepare and execute a plan of care for the patient with cardiovascular, hematologic and lymphatic disorders.

Unit Outline

- I. Cardiovascular Disorders (35)
- II. Hematologic and Lymphatic Disorders (10)

Requirements: Williams, Linda S., & Hopper, Paula, D. Understanding Medical Surgical Nursing, 6th ed.

Williams, Linda S., & Hopper, Paula, D. Student Workbook for Understanding Medical Surgical Nursing, 6th ed.

Elkin, Perry & Potter. Nursing Interventions and Clinical Skills, 7th ed.

Ford, Susan, M.. Clinical Pharmacology. 11th ed.

Evaluation: Unit grade determined by: *Average of six written tests and PrepU/Roach assignments/quizzes as determined by faculty*

A final average of 80% is the minimum passing grade for Medical Surgical I

Revised: 6/2019

BIBLIOGRAPHY

- Elkin, P., Perry, A. & Potter, P. Nursing Interventions and Clinical Skills, 7th ed., Mosby, Philadelphia, Pa, 2020.
- Ford, S.M. Roach's Introductory Clinical Pharmacology, 11th ed., Lippincott Williams & Wilkins, Philadelphia, Pa. 2018.
- Herlihy, B. The Human Body in Health and Illness, 6th ed., Elsevier, St. Louis, Missouri, 2018.
- Hopper, P. & Williams, L. Understanding Medical-Surgical Nursing, 6th ed., F.A.Davis, Philadelphia, PA, 2019.
- Hopper, P. & Williams, L. Study Guide for Understanding Medical-Surgical Nursing, 6th ed., F.A.Davis, Philadelphia, PA, 2019
- Taber's Cyclopedic Medical Dictionary, 23rd ed., F.A.Davis Company, Philadelphia, PA, 2017.
- Vallerand, A., Sebnoski, C., & Deglin, J. Davis' Drug Guide for Nurses, 16th ed., F. A. Davis Company, Philadelphia, PA, 2019
- Van Leerwen, A., Krapitz, T. & Smith, L. Davis' Comprehensive Handbook of Laboratory and Diagnostic Tests, 7th ed., F.A. Davis Company, Philadelphia, Pa, 2017.

Online Sources

- AHA Media Player. Video Cardiac catheterization, MI, Stenting Procedures. Retrieved from www.aha.com
- AHA News. Retrieved January 22, 2019 from www.aha.com
- AHA Statistical Update: Heart Disease & Stroke Statistics 2017. Retrieved March 30, 2018 from www.aha.com
- Ace Inhibitors and CHF. Retrieved October 8 2017 from www.chfpatients.com
- Surgical Procedures for Atrial Fibrillation. Retrieved October 18, 2015 from www.mylevelandclinic.org/heart/disorder

COURSE TITLE: Medical Surgical Nursing
Unit Title: Cardiovascular Medical Surgical Nursing

STUDENT LEARNING COURSE OUTCOMES	H R	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>At the completion of this unit the student will:</p> <ol style="list-style-type: none"> 1. Describe the normal anatomy and physiology of the cardiovascular system. 2. Describe the nursing assessment of the cardiovascular system including health history and physical assessments. 3. List common diagnostic tests utilized to evaluate the patient with suspected cardiovascular disorders. 4. Use critical thinking skills to determine expected therapeutic measures for the patient with cardiovascular disorders. 5. Apply knowledge of nursing assessments to selected patient assignments in the clinical area. 	6	<p>I. Cardiovascular Disorders</p> <p>A. Anatomy & Physiology.</p> <ol style="list-style-type: none"> 1. Cardiac cycle 2. Regulation of heart rate 3. Hormones & the heart 4. Blood vessels 5. Pathways of circulation <p>B. Aging and the cardiovascular system</p> <p>C. Nursing assessments of the cardiovascular system</p> <p>D. Diagnostic studies</p> <p>E. Therapeutic measures for the cardiovascular system</p>	<p>Read: Williams & Hopper "Cardiovascular System Function, Assessment, & Therapeutic Measures" Complete workbook exercises</p> <p>View: Powerpoint</p> <p>Video: Circulatory System: The Plasma Pipeline, & Diagnosing Heart Disease</p> <p>Lecture/Discussion</p>	<p>Classroom & Clinical area</p>	<p>Active participant in class discussion</p> <p>Satisfactory completion of all assignments</p> <p>Test 1</p>

COURSE TITLE: Medical-Surgical Nursing
Unit: Cardiovascular Disorders

STUDENT LEARNING COURSE OUTCOMES	H R	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>At the completion of this unit the student will:</p> <ol style="list-style-type: none"> 1. Define hypertension. 2. Explain pathophysiology, etiology and risk factors associated with hypertension. 3. Identify causes and treatment for primary or essential, secondary, and isolated systolic hypertension. 4. Identify the classifications of hypertension in adults and recommendations for follow-up based on blood pressure. 5. Explain the treatment of hypertension, including lifestyle modifications and medications. 6. Identify the common complications of hypertension 7. Provide teaching and learning strategies to assist the patient with hypertension in adjusting to a chronic illness. 8. Define hypertensive crisis. 9. Apply knowledge of hypertension management and teaching to selected patients on the clinical area. 	<p>4</p>	<p>II. Hypertension</p> <ol style="list-style-type: none"> A. Pathophysiology, etiology, assessments, diagnostic tests, and medical management related to: <ol style="list-style-type: none"> 1. primary hypertension 2. secondary hypertension B. Risk factors related to hypertension C. Complications related to hypertension D. Patient education related to hypertension and adjustment to lifestyle changes with chronic illness E. Nursing process for the patient with hypertension 	<p>Read: Williams & Hopper "Nursing Care of Patients with Hypertension"</p> <p>Ford: Complete online assignments as instructed</p> <p>Handout: Drugs Used for Hypertension</p> <p>Complete workbook exercises</p> <p>Video: Hypertension</p> <p>View: Powerpoint Lecture/Discussion</p>	<p>Classroom & Clinical Area</p>	<p>Satisfactory completion of assignments</p> <p>Blood Pressure Screening in the Community with clinical group</p> <p>Test 2</p>

COURSE TITLE: Medical-Surgical Nursing
Unit: Cardiovascular Disorders

STUDENT LEARNING COURSE OUTCOMES	H R	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>At the completion of this unit the student will:</p> <ol style="list-style-type: none"> Describe pathophysiology, etiology, signs and symptoms, diagnostic tests and medical treatment for valvular disorders and rheumatic heart disease. Explain the nursing care for patients with valvular disorders, rheumatic fever and rheumatic heart disease Describe pathophysiology, etiology, signs and symptoms, diagnostic tests and medical treatment for infective endocarditis, myocarditis, and pericarditis. Incorporate critical thinking and the nursing process to develop a plan of care for the patient with an infectious and inflammatory disorder of the heart. Explain the importance of prophylactic antibiotics for infective endocarditis, myocarditis and rheumatic heart disease. Understand the effects of cardiomyopathy related to nursing care. Describe thrombophlebitis and apply nursing interventions in the plan of care for a patient with thrombophlebitis. 	<p>6</p>	<p>III. Valvular, Inflammatory and Infectious Cardiac/ Venous Disorders</p> <p>A. Cardiac Valvular Disorders</p> <ol style="list-style-type: none"> Mitral Valve Prolapse Mitral Stenosis Mitral Regurgitation Aortic Stenosis Aortic Regurgitation Cardiac Valvular Surgical Interventions <p>B. Inflammatory and Infectious Cardiac Disorders</p> <ol style="list-style-type: none"> Rheumatic Fever Rheumatic Heart Disease Infective Endocarditis Pericarditis Myocarditis Cardiomyopathy Cardiac Trauma <p>C. Venous Disorders</p> <ol style="list-style-type: none"> Thrombophlebitis 	<p>Read: <u>Williams & Hopper</u> "Nursing Care for Valvular, Inflammatory, Infectious Cardiac or Venous Disorders" Ford: Complete online assignments as instructed</p> <p>Complete workbook exercises</p> <p>View Powerpoint</p> <p>Lecture/Discussion</p>	<p>Classroom & Clinical area</p>	<p>Test 3</p>

COURSE TITLE: Medical-Surgical Nursing I
Unit title: Cardiovascular Disorders

STUDENT LEARNING COURSE OUTCOMES	HR	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>At the completion of this unit the student will:</p> <ol style="list-style-type: none"> 1. Define arteriosclerosis and atherosclerosis. 2. Identify etiology and the nursing assessment of the patient with coronary artery disease. 3. List medications used to treat coronary artery disease and angina. 4. Apply knowledge of nursing interventions in the plan of care for a patient with coronary artery disease. 5. Describe pathophysiology, etiology, assessment, diagnostic testing and medical management for the patient with a myocardial infarction. 6. Utilize critical thinking and the nursing process to develop a plan of care for the patient with a myocardial infarction. 7. Verbalize knowledge of cardiac rehabilitation in caring for assigned patients on the cardiopulmonary unit. 8. Describe signs, symptoms, and management of specific vascular diseases. 9. Apply the nursing process in decision making regarding the care of patients with vascular diseases. 	<p>8</p>	<p>IV. Occlusive Cardiovascular Disorders</p> <ol style="list-style-type: none"> A. Arteriosclerosis and Atherosclerosis B. Coronary Artery Disease <ol style="list-style-type: none"> 1. Pathophysiology 2. Risk Factors 3. Nursing Process 4. Medical Management 5. Surgical Management 6. Acute Coronary Syndromes E. Angina Pectoris F. Myocardial Infarction <p>F. Peripheral Vascular System</p> <ol style="list-style-type: none"> 1. Arterial Thrombosis and Embolism 2. Peripheral Arterial Disease 3. Aneurysms 4. Raynauds Disease 5. Thromboangitis Obliterans 6. Varicose Veins 7. Venous Insufficiency <p>G. Lymphatic System</p> <ol style="list-style-type: none"> 1. Lymphangitis 2. Lymphedema 	<p>Read: Williams & Hopper "Nursing Care of Patients with Occlusive Cardiovascular Disorders" Ford: Complete online assignments as instructed</p> <p>View: Powerpoint</p> <p>Videos: Myocardial Infarction, Coronary Artery Disease; 1 & 2, An Inside Look: Heart Attack</p> <p>Lecture/Discussion</p>	<p>Classroom & Clinical area</p>	<p>Test 4</p>

COURSE TITLE: Medical Surgical Nursing I
Unit: Cardiovascular Medical Surgical Nursing

STUDENT LEARNING COURSE OUTCOMES	H R	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>At the completion of this unit, the student will:</p> <ol style="list-style-type: none"> 1. Identify the components of the heart's conduction system. 2. Describe the medical treatment for the assigned dysrhythmias. 3. Explain the nursing care related to patients with dysrhythmias. 4. Identify the actions, side effects and nursing considerations for antiarrhythmic medications. 5. Describe cardioversion, pacemakers, and implanted internal defibrillators. 6. Apply knowledge of nursing interventions in the plan of care for patients with a cardiac dysrhythmia. 	<p>4</p>	<p>V. Cardiac Dysrhythmias</p> <ol style="list-style-type: none"> A. Components of the cardiac cycle. B. Common dysrhythmias C. Antiarrhythmic medications D. Pacemakers E. Defibrillators F. Cardioversion & Ablation G. Nursing Process for the patient with dysrhythmias 	<p>Read: Williams & Hopper "Nursing Care of Patients with Cardiac Dysrhythmias"</p> <p>Ford: Complete online assignments as instructed</p> <p>Complete chapter review questions &</p> <p>Complete workbook exercises : omit rhythm strip interpretation</p> <p>Handout: Therapies Related to Dysrhythmias</p> <p>Video: Arrhythmias, Electrical Therapy for Heart: Defibrillation</p> <p>Lecture/Discussion</p>	<p>Classroom & Clinical area</p>	

COURSE TITLE: Medical-Surgical Nursing I
Unit title: Cardiovascular Disorders

STUDENT LEARNING COURSE OUTCOMES	H R	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>At the completion of this unit the student will:</p> <ol style="list-style-type: none"> Describe the pathophysiology, etiology and nursing assessment for both left-sided and right-sided heart failure. Differentiate between the causes of acute and chronic heart failure. Describe the signs and symptoms of both acute and chronic heart failure and the medical management of each. Identify the diagnostic tests utilized for heart failure and the appropriate nursing care necessary. Identify the medications indicated for heart failure including the actions, side effects and nursing considerations. Describe the nursing care appropriate for patients with acute and chronic heart failure. Apply knowledge of the nursing process related to the plan of care of selected patients with congestive heart failure. 	5	<p>VI. Heart Failure</p> <p>A. Pathophysiology, etiology, assessments, diagnostic tests and medical management related to:</p> <ol style="list-style-type: none"> Left sided heart failure Right sided heart failure Acute heart failure-pulmonary edema Chronic heart failure <p>B. Medical Management</p> <ol style="list-style-type: none"> Pacemaker for CHF Medical assistive devices Surgical management <p>C. Drug therapy</p> <ol style="list-style-type: none"> ACE inhibitors Diuretics Inotropic agents <p>D. Nursing process related to the patient with Congestive Heart Failure</p>	<p>Read: Williams & Hopper "Nursing Care of Patients with Heart Failure"</p> <p>Ford: "Cardiotonic & Inotropic drugs Complete chapter review questions</p> <p>&</p> <p>Complete workbook exercises</p> <p>Videos: Heart Failure & Pulmonary Edema,</p> <p>View: Powerpoint</p> <p>Lecture/Discussion</p>	<p>Classroom & Clinical area</p>	<p>Test 5 (2 chapters)</p>

COURSE TITLE: Medical Surgical Nursing
Unit Title: Cardiovascular Medical Surgical Nursing

STUDENT LEARNING COURSE OUTCOMES	H R	CONTENT	LEARNING RESOURCE AND ACTIVITY	SETTING	EVALUATION
<p>At the completion of this unit the student will:</p> <ol style="list-style-type: none"> 1. Describe the normal structure and function of the hematologic system. 2. Discuss diagnostic evaluation of the patient with a disorder of the hematologic and lymphatic system. 3. Use critical thinking skills to determine the expected therapeutic measures for the patient with hematologic and lymphatic disorders. 4. Describe the LPN role in the administration of blood products. 5. Describe the pathophysiology, etiology, assessment, and management of the patient with a disorder of the hematologic system. 6. Describe the pathophysiology, etiology, assessments and management of the patient with a disorder of the lymphatic system. 7. Discuss the nursing management for the patient with a hematologic disorder. 8. Discuss the nursing management for the patient with a lymphatic disorder. 	<p>10</p>	<p><u>VII. Hematologic & Lymphatic Disorders</u></p> <ol style="list-style-type: none"> A. Review of anatomy & physiology. B. Diagnostic Tests C. The Anemias <ol style="list-style-type: none"> 1. Iron deficiency anemia 2. Pernicious anemia 3. Folic acid deficiency 4. Aplastic anemia 5. Sickle cell anemia D. Myeloproliferative Disorder <ol style="list-style-type: none"> 1. Polycythemia Vera E. Hemorrhagic disorders <ol style="list-style-type: none"> a. Disseminated Intravascular Coagulation b. Idiopathic Thrombocytopenia Purpura c. Hemophilia F. Disorders of white blood cells. <ol style="list-style-type: none"> a. Leukemia H. Multiple Myeloma H. Lymphatic disorders <ol style="list-style-type: none"> a. Hodgkin's disease b. Non-Hodgkin's lymphoma c. Splenic disorders 	<p>Read: Williams & Hopper "Hematologic & Lymphatic System Function, Assessment, & Therapeutic Measures and "Nursing Care of Patients with Hematologic & Lymphatic Disorders" Ford: Complete online assignments as instructed View: Powerpoint Judy Miller Hematology review Video: Gunther's ER: Massive Blood Loss Lecture/Discussion</p>	<p>Classroom & Clinical</p>	<p>Test 6 (2 chapters)</p>