

N102

Medical-Surgical Nursing



Fall 2005
Beth Hardy, MSN, RN, BC

SUBSYLLABUS FOR MEDICAL-SURGICAL NURSING

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Textbooks

Doenges, M.E. & Moorhouse, M.F. (2003). *Application of nursing process and nursing diagnosis: An interactive text for diagnostic reasoning*, (4th ed.). Philadelphia: F.A. Davis.

Timby, B.D. & Smith, N.E. (2003). *Introductory medical-surgical nursing*, (8th ed.). Philadelphia: Lippincott.

Hockenberry, (2005). *Wong's essentials of pediatric nursing*, (7th ed.). St. Louis: Mosby.

Course Description

See syllabus description for N102.

Unit Description

This unit provides theoretical foundation for the novice nurse. Topics of instruction include: nursing process, introduction to cardiovascular and respiratory nursing care, preventing the spread of infection, nursing care of patients with HIV, cancer, pain, and fluid, electrolyte and/or acid-base imbalance, and introduction to caring for pediatric patients. Pharmacological agents related to the presented medical-surgical problems are also discussed.

Instructional Outcomes

Upon completion of this course, the student should be able to adapt the nursing process to meet the needs of adult and pediatric patients experiencing common medical and surgical conditions.

Teaching Strategies

Content is presented through a variety of methods, including lecture, case studies, concept mapping, homework assignments and group problem-solving activities to stimulate critical thinking.

Attendance Policy

See Student Guide and Catalog. One (1) point is deducted from the final MedSurg grade for each class the student is absent.

Grading Policy

The grade from this unit becomes a component of the student's final course grade for N102 Medical-Surgical Nursing. As noted in attendance, one point is deducted from the final overall grade for this course for each hour a student is absent. Students must pass N102 with a grade of 77 or above in order to successfully complete Semester 1 of the LPN - Level I Program. The final grade for Medical-Surgical Nursing will be derived as follows:

20% Homework & Quizzes

80% Exams (4)

Computer Exams: See Course Schedule (specific dates and any changes will be announced). All students must take the exams during the availability period. In the event of an emergency and a student cannot take the exam as scheduled, the instructor must be informed prior to the close of the exam and a decision will be made regarding a make-up time. If the student could not notify the instructor prior to the time of the exam, the student must make arrangements with the instructor for a make-up and a 10% penalty will be applied to the exam grade. Notification of the instructor must occur within 24 hours of the close of the exam or a grade of zero will be applied to that exam.

Final Exam: Comprehensive questions from the Medical-Surgical unit will be included in the nursing finals given during finals week.

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Homework Assignments: No homework assignments will be accepted late. Any homework that looks remarkable similar to other homework will receive a grade of '0' as well as the other homework from which it was copied, whether or not consent was given.

Course Schedule/Calendar (*TENTATIVE* attached, final schedule to be provided during latter part of first week.)

N102: MEDICAL-SURGICAL NURSING
Tentative Schedule
Fall 2005

Day	Date	Time	Content	Assignments
Mon	09/12	1000	Course Introduction Nursing Process	Doenges Ch 1-3
Mon	09/19	1000	Nursing Process continued	Doenges Ch 4-6
Mon	09/26	1000	Nursing Process conclusion	HW #1 Due Doenges Ch 7-8
Test #1, TBA				
Mon	10/03	1000	Intro to Cardiovascular Nursing Care	Timby Ch 30, 33, 35, 36
Mon	10/10	1000	Cardio conclusion	
Mon	10/17	1000	Intro to Respiratory Nursing Care	Timby Ch 27 & 29
Mon	10/24	1000	Respiratory conclusion	HW #2 Due
Test #2, TBA				
Mon	10/31	1000	Intro to the Immune System, Infectious Disorders & Caring for Patients with HIV/AIDS	HW #3 Due Timby Ch 19, 41-43
Mon	11/07	1000	Caring for Patients with Cancer	Timby Ch 20
Mon	11/14	0800	Pain Assessment and Management	Timby Ch 21
Test #3, TBA				
Mon	11/14	0900	Shock	Timby Ch 23 & Allergic Disorders Ch 42
Mon	11/21	0800	Fluid & Electrolyte Balance	Timby Ch 22
Mon	11/28	1100	Acid-Base Balance	
Mon	12/05	0900	Introduction to Caring for Pediatric Patients	HW #4 Due Wong Ch 5 - 7
Mon	12/05	1000	Review	
Test #4, TBA				

Course Title: Nursing 102

Unit Title: Medical Surgical Nursing

Module #1: **NURSING PROCESS**

Content Area: Nursing history
Steps of nursing process
Writing nursing care plans

Introduction

In order for the nurse to deliver effective care, which meets the patient's needs, she/he must have a plan of action. The nursing process is a systematic method of providing nursing care that is goal directed, organized and capable of being evaluated. The nurse must be familiar with, and be able to implement the nursing process. This module will familiarize the student with the nursing process.

Goal Statement

Upon successful completion of this module the student will be able to describe the steps of the nursing process, and be able to implement these steps in initiating the development of a basic care plan, and completing a plan based on a clinical example.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes, and tests concerning this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. define the following:

a. nursing process	i. priorities	p. kardex
b. assessment	j. validate	q. reassessment
c. evaluation	k. analysis	r. nursing history (interview)
d. implementation	l. nursing diagnosis/ problem (Data Analysis)	s. independent nursing action
e. plan	m. objective data	t. dependent nursing action
f. goal	n. subjective data	
g. objective	o. nursing actions	
h. outcome		
2. discuss the 4 and 5 steps of the nursing process.
3. discuss 5 reasons why the nursing process is important to the nurse.
4. list and describe the 4 techniques involved in the process of assessment.
5. describe Maslow's hierarchy of needs and state its use in the nursing process.
6. explain how an individual's level of growth and development plays a role in the nursing process.
7. describe planning phase of the nursing process.
8. describe implementation phase of the nursing process.
9. describe 2 actions in the evaluation phase of the nursing process.
10. demonstrate the correct technique for:
 - a. collecting and organizing patient data into a problem/needs list.
 - b. writing nursing goals.
 - c. planning and selecting appropriate nursing actions to meet nursing goals.
 - d. validating the patient care plan.
 - e. transferring the patient care plan to nursing kardex or patient's chart.
 - f. implementing the patient care plan to the clinical setting.
 - g. evaluating and reassessing the patient care plan.

Directions and Learning Activities

1. Read Chap. 1-8 in Doenges and Moorhouse.
2. Answer enabling objectives.

3. Attend, be prepared and participate in class.

NURSING PROCESS

- 1. Assessment**
 - Collection & examination of data
 - Validation
 - Organization
 - Pattern Identification
- 2. Diagnosis/Problems/Needs**
 - Analyzing data to identify
 - Health problems and strengths
 - Problem Identification (etiology)
 - Signs and Symptoms
- 3. Planning**
 - Developing a plan of action
 - Implementation
 - Putting the plan into action
- 4. Evaluation**
 - Evaluation goal achievement
 - Review the nursing process and update
- 5. Collaborative Nursing Actions**
 - Independent nursing actions
 - Dependent nursing actions

NURSING PROCESS TERMINOLOGY

Data Gathering	Nursing History Intake Interview Admission Interview Assessment
Problem Identification	Needs Problems Problem List Nursing Diagnosis
Goal Setting	Objectives Short-Term Goals Long-Term Goals Expected Outcomes Outcome Criteria Criteria for Discharge
Intervention	Approaches Methods Solutions Nursing Orders Plan of Action / Plan of Care Nursing Prescriptions

MASLOW'S HIERARCHY OF HUMAN NEEDS: Priority Ranking of Subcategories

Physiological

1. AIR: airway, breathing, gas exchange,
2. CIRCULATION: pulse, bleeding, cardiac output, tissue perfusion
3. WATER: fluid & electrolyte balance, acid-base balance
4. FOOD BALANCE: nutrition, N&V, self-care deficit: feeding
5. WASTE ELIMINATION: bowel and urinary problems, self-care deficit: toileting
6. TEMPERATURE CONTROL: skin integrity, elevated or subnormal temp, protection from infection
7. REST: sleep deprivation, disturbance of rest, need of relaxation
8. COMFORT: freedom from pain, pain avoidance
9. ACTIVITY: exercise, immobility, intolerance to activity, energy
10. CLEANLINESS: self-care deficits: grooming/hygiene
11. STIMULATION: need for sensory input, sensory overload, orientation needs, alteration in sensory perception
12. SEXUALITY: sexual dysfunction

Safety/Security Needs

1. PROTECTION FROM PHYSICAL HARM: potential for injury: falls, bruising, strange environment: (potential for violence)
2. PROTECTION FROM PSYCHOLOGICAL THREAT: stress management, fear, spiritual well-being/comfort
3. DEPENDENCE: powerlessness, hopelessness, coping needs (individual and family), need for emotional support.
4. PREDICTABLE, ORDERLY WORLD: environmental needs
5. SECURITY: needs of self-protection through structure, law, order, and limits; example: security of a spouse or occupational position; anxiety
6. FINANCIAL SECURITY: impairment in home maintenance
7. KNOWLEDGE: need for information about disease, procedures, health maintenance for safety and security needs

Love and Belonging Needs (Social)

1. LOVE: (need for affection), alteration in parenting, ineffective individual coping, companionship needs.
2. BELONGING NEEDS: alterations in family process, ineffective family coping, aloneness, isolation, alienation
3. SOCIAL: diversional activities, socializing, privacy

Self-Esteem Needs

1. BODY IMAGE: dysfunctional grieving r/t body image changes
2. SELF-CONCEPT: high evaluation of self, sense of usefulness, sense of adequacy; diagnose and amplify strengths
3. ESTEEM-FROM-OTHER NEEDS
4. CONTROL OVER: SELF, OTHERS, SITUATION: powerlessness

GOAL SETTING/CLIENT OBJECTIVES/OUTCOME CRITERIA

Short-Term:

Immediate
Certain date (within 2-3 days)
By discharge

Long-Term (longer than 2-3 days)

Post-discharge from acute care facility
Rehabilitation
Habilitation

Should be stated in patient behavioral terms (not nurse or M.D.)

For example: Patient will have pain managed at a '0' to '2' on a 0 to 5 scale throughout hospital stay.

NOT

Prevent pain.

Must be realistic and achievable

For example a patient with emphysema:

Realistic: Pt will maintain oxygen saturation greater than 85% during usual activities of daily living.

Unrealistic: Pt will return to normal respiratory function.

Must be measurable: "as indicated by..." "date" or include timeframe/criteria in goal

For example: Pt will walk with walker to bathroom and back by third post-op day without dyspnea.

CARE PLAN ELEMENTS

Nursing Diagnosis/Problem Identification

Based on assessment data revealing health problems and/or needs for health maintenance.

Long-Term Goal

Subject/broad verb/condition

Short-Term Goal

Subject/measurable verb/condition

This step helps reach the long-term goal.

Client Objectives

Criteria

Specific time

Actions

Nursing orders

Specific interventions that help the client reach the short-term goal.

Rationale

The actions are validated by scientific principles and documented by page number in nursing texts.

This is utilized to evaluate the student's research into the interventions necessary for the particular problem being addressed.

Evaluation

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Evaluation includes the documentation of the results, the intervention and accomplishment of the goal. This step helps you evaluate your care and direct your attention to changes that may be necessary.

EXAMPLE OF NURSING CARE PLAN

ASSESSMENT (Nursing Problems/Needs)	PLANNING (Goal Setting)	IMPLEMENTATION (Nursing orders or actions to meet goals)	EVALUATION (Actions, goals, overall POC)
Alteration in comfort-pain/acute Related to immobility of hip joint due to hip surgery. Signs & symptoms (assessment) a) pt. cries out when moved b) pt. continuously appears anxious (facial tenseness grabbing siderails)	Short-term goal: Pt. will have pain managed within 30-60 Min. AEB pt/pt's: a. verbalizes the pain is at 0 to 2 on 0 to 5 Scale. b) is able to move with assistance. c) facial expression and body movements are relaxed.	1. Administer pain medication (as ordered) 2. Document type of pain/onset and how relief is obtained. 3. Administer Medication 30 mins prior to turning patient. 4. Maintain position & alignment as ordered (ex: abduction).	5/23 1. Pt is pain free but requires medication q 4-6hr. 2. Patient is able to turn when medicated 30 mins prior to procedure.

IMPLEMENTATION

How to start the decision-making process:

1. Examine M.D. orders for directions regarding dependent nursing actions:
 - a. positioning for the hip surgery patient
 - b. medicating to relieve pain
2. Look up patient's medical and surgical diagnosis in textbook or reference.
3. Look up nursing problems in nursing text and/or care plan book.
4. Write nursing orders or actions in the implementation column. Be sure the orders:
 - a. Refer to directly to the goals.
 - b. Are specified in measurable terms and/or surgical procedure in text or reference

Examples:

1. Each shift, document type of pain, onset and how relief is obtained.
2. Assess for pain during each patient interaction and administer pain medication as ordered when pain is a 2 or greater on a 0 to 5 scale.
3. Administer medication 30mins prior to turning patient.
4. Maintain position as ordered (ie: leg abduction) at all times.

Course Title:	Nursing 102
Section Title:	Medical Surgical Nursing
Module #2:	CARDIOVASCULAR SYSTEM
Content Area:	Anatomy and physiology of cardiovascular system Function of the cardiovascular system Assessment of the cardiovascular system Therapeutic measures for the cardiovascular system Diagnostic tests related to the cardiovascular system Heart failure

Introduction

The cardiovascular system consists of the heart and blood vessels, including arteries, capillaries and veins. This system is responsible for pumping blood to all parts of the body. Understanding the function, assessment and care of the cardiovascular system is important to the nurse. Understanding the disease processes of the cardiovascular disease is important for the nurse to meet the needs of the client.

Goal Statement

Upon successful completion of this module the student will understand the basic anatomy and physiology of the cardiovascular system, assessment and therapeutic management of the system. The student will identify basic diseases of the cardiovascular system and care of those diseases.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes, and tests concerning this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. identify structures of the cardiovascular system.
2. describe the functions of the cardiovascular system.
3. list the effects of aging on the cardiovascular system.
4. discuss nursing assessment of the cardiovascular system, including health history and physical assessment.
5. describe therapeutic measures for clients with cardiovascular disease.
6. explain laboratory and diagnostic studies used when evaluating cardiovascular function.
7. explain heart failure, signs and symptoms, etiology and treatment.

Directions and Learning Activities:

1. Read *Introductory Medical-Surgical Nursing*, Timby and Smith, Ch 30, 33, 35 & 36.
2. Answer enabling objectives.
3. Attend, be prepared, and participate in class discussions.

Course Title:	Nursing 102
Section Title:	Medical Surgical Nursing
Module#2:	RESPIRATORY SYSTEM
Content Area:	Anatomy and physiology of respiratory system Function of the respiratory system Nursing assessment of the respiratory system Diagnostic tests related to the respiratory system Therapeutic measures related to the respiratory system Atelectasis Emphysema Chronic Obstructive Pulmonary Disease

Introduction

Breathing occurs on a daily basis. Most people take for granted that breathing will occur. Function of the cardiovascular system depends on oxygenation from the respiratory system. Knowledge of the basic anatomy and physiology of the respiratory system is essential to the assessment and care of the system. The nurse should be knowledgeable of the diseases of the respiratory system, signs and symptoms, etiology and treatment.

Goal Statement

Upon successful completion of this module the student will be able to identify the basic anatomy and physiology of the respiratory system along with the assessment and therapeutic measures of this system. The student will identify basic diseases of the respiratory system and care of those diseases.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes and written test on this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. identify structures of the respiratory system.
2. describe the functions of the respiratory system.
3. list the effects of aging on the respiratory system.
4. describe nursing assessment of the respiratory system including health history and physical assessment.
5. explain common laboratory and diagnostic studies used to evaluate respiratory function.
6. describe common therapeutic measures for clients with respiratory disorders.
7. define atelectasis, signs and symptoms, etiology and treatment.
8. define emphysema, signs and symptoms, etiology and treatment.
9. discuss COPD, signs and symptoms, etiology and treatment.

Directions and Learning Activities

1. Read *Introductory Medical-Surgical Nursing*, Timby & Smith, Ch 27 & 29.
2. Answer enabling objectives.
3. Attend, be prepared, and participate in class discussions.

Course Title: Nursing 102

Section Title: Medical Surgical Nursing

Module #3: PREVENTING THE SPREAD OF INFECTIONS

Content Area: Infectious process
Human body's defense mechanisms
Infectious disease
Infection treatment and prevention
Immune system function, assessment, and therapeutic measures
Nursing care of patients with immune disorders

Introduction

Infectious diseases are a major cause of death worldwide. Nurses must consistently practice methods of infection prevention and control in order to provide safe and effective care. Understanding the infectious process, transmission prevention, and threats of drug-resistant and re-emerging infections will assist the nurse in preventing or minimizing the effects of infection.

Goal Statement

Upon successful completion of this module the student will be able to identify and explain practices to prevent, and control infectious diseases and apply the concepts in planning patient care.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes and written test on this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. discuss the infectious process.
2. identify the body's defense mechanisms against agents that cause disease.
3. describe the difference between localized and generalized infections.
4. explain the difference between active and passive immunity.
5. discuss the difference between community-acquired and nosocomial infections.
6. explain medical and surgical asepsis.
7. explain types of isolation techniques.
8. discuss treatments for infectious diseases.
9. discuss nursing care of patients with infectious disease.
10. define immunity.
11. differentiate between the various types of immunity.
12. list effects of aging on immunity.
13. explain the difference between T cells and B cells.
14. define antigens and antibodies and discuss their roles.
15. discuss how past surgeries and past or current medications may affect immunity.
16. discuss diagnostic tests and procedures for immune system dysfunction and their importance.
17. describe the pathophysiology, etiology, complications, diagnostic tests, medical treatment, nursing management, and prevention of HIV/AIDS.

Directions and Learning Activities:

1. Read *Introductory Medical-Surgical Nursing*, Timby & Smith, Ch 19 & 41-43.
2. Answer enabling objectives.
3. Attend, be prepared, and participate in class discussions.

Course Title: Nursing 102

Section Title: Medical Surgical Nursing

Module #3: **CARING FOR PATIENTS WITH CANCER**

Content Area: Introduction to nursing care for patients with cancer
Diagnostic studies and related nursing considerations
Common treatment modalities, side effects, and nursing care

Introduction

According to the American Cancer Society (2001), approximately 1.5 million people are newly diagnosed with cancer each year, and cancer will occur in approximately 1 out of every 3 persons currently living in North America. Care of the patient with cancer and his/her family presents many challenges. This unit is designed to provide a general overview of important nursing assessments and interventions for providing comfort and care for those with cancer.

Goal Statement

Upon successful completion of this module the student will be able to identify critical assessments and interventions for patients undergoing radiation and/or chemotherapy.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes and written test on this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. review normal anatomy and physiology of the cell.
2. relate the changes that occur when the cell becomes malignant.
3. describe the special nursing needs of the client receiving chemotherapy or radiation therapy.
4. differentiate between the purposes of chemo and radiation.
5. discuss the appropriate nursing assessment and interventions for common oncological emergencies.
6. describe the concept of hospice in providing care for clients with advanced cancer.
7. use the nursing process to plan care for patients with cancer.

Directions and Learning Activities

1. Read *Introductory Medical-Surgical Nursing*, Timby & Smith, Ch 20.
2. Answer enabling objectives.
3. Attend, be prepared, and participate in class discussions.

Course Title: Nursing 102

Section Title: Medical Surgical Nursing

Module #3: **EFFECTIVE PAIN ASSESSMENT AND MANAGEMENT**

Content Area: Nursing care of patients in pain
Cultural variations in pain expression and management
Types of pain
Pain theories
Pharmacological and non-pharmacological treatments for pain

Introduction

Pain compromises quality of life more than any other single health-related symptom, and it is the number one reason for people to seek medical attention. Although pain has been extensively researched and national nursing organizations, including the American Nurses Association, have endorsed policy to make pain the 5th vital sign, unrelieved and under-treated pain remains a major health problem in the United States. Effective pain management involves independent and dependent nursing actions and an understanding of scientific principles and socio-cultural influences.

Goal Statement

Upon successful completion of this module the student will be able to assess and plan care for patients with acute and/or chronic pain.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes and written test on this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. define pain.
2. identify and discuss myths and barriers to effective pain management.
3. explain the differences between addiction, physical dependence, and tolerance.
4. explain current knowledge of the physiology of the pain response.
5. define and discuss acute, chronic, and cancer pain.
6. identify and discuss the components of pain assessment.
7. list three categories of analgesics and their uses.
8. identify at least four different pain treatment modalities and when they might be used.
9. describe nondrug pain management techniques.
10. explain how ethical decision-making plays a role in the care of the client in pain.
11. identify and explain nursing interventions for patients with acute and/or chronic pain.

Directions and Learning Activities

1. Read *Introductory Medical-Surgical Nursing*, Timby & Smith, Ch 21.
2. Answer enabling objectives.
3. Attend, be prepared, and participate in class discussions.

Course Title:	Nursing 102
Section Title:	Medical Surgical Nursing
Module #4:	IDENTIFICATION AND NURSING CARE OF PATIENTS IN SHOCK
Content Area:	Pathophysiology of shock Identification and nursing care of patients in Hypovolemic shock Cardiogenic shock Anaphylactic shock Septic shock Neurogenic shock

Introduction

Shock is a whole-body response to poor tissue oxygenation. When the body is unable to compensate or interventions are ineffective, extensive hypoxia can lead to multiple organ failure and death. The ability to recognize and quickly respond to symptoms of shock is an essential nursing skill.

Goal Statement

Upon successful completion of this module the student will be able to identify the clinical manifestations of shock and the guiding principles for treating shock.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes and written test on this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. define shock
2. explain the causes and pathophysiology of shock.
3. explain how the body attempts to compensate for shock.
4. differentiate between the four categories of shock.
5. explain how different body organs are affected by shock.
6. identify the symptoms of shock.
7. describe a comprehensive assessment of a client in shock.
8. apply the nursing process to the care of the patient in shock.

Directions and Learning Activities

4. Read *Introductory Medical-Surgical Nursing*, Timby & Smith, Ch 23 & Allergic Disorders Ch 42.
5. Answer enabling objectives.
6. Attend, be prepared, and participate in class discussions.

Course Title: Nursing 102

Section Title: Medical Surgical Nursing

Module #4: FLUID, ELECTROLYTE, AND ACID-BASE BALANCE

Content Area: Fluid distribution and control
Common fluid disturbances, signs and symptoms, and treatment
Common electrolyte imbalances, etiology, signs and symptoms
Acid-base control
Common acid-base alterations, etiology, signs and symptoms, and management

Introduction

Approximately sixty percent of the total weight of the human body is composed of fluid. Respirations, metabolism, digestion, excretion and life itself are affected by the electrolytes contained in this fluid. Imbalances among these electrolytes or fluids can seriously jeopardize a patient's life. Likewise, the correct ratio of the carbonic acid to bicarbonate provides for normal cellular activities. When the acid-base balance is upset the body is in disequilibrium. Nursing care of patients with fluid, electrolyte, and/or acid-base imbalances is directed towards assisting that patient to retain or regain homeostasis.

Goal Statement

Upon successful completion of this module the student will be able to identify signs and symptoms of common alterations in fluid, electrolyte, and acid-base balances and utilize the nursing process in the care of the patients with fluid and electrolyte base needs.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes and written test on this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. define the terms in the assigned chapter.
2. explain the distribution of fluid volume in the adult and infant body.
3. identify ways in which fluids and electrolytes move between intercellular and extracellular compartments.
6. describe ways in which the skin, lungs, gastrointestinal tract, and kidneys help to maintain fluid and electrolyte balance:
7. plan nursing care for patients who are dehydrated or in a state of circulatory overload.
8. distinguish the major functions of sodium, potassium, calcium and magnesium
9. recall the normal serum levels of sodium (Na^+), potassium (K^+), and calcium (Ca^{++}).
10. relate signs, symptoms, etiology to nursing management of the patient with any of the following electrolyte imbalances:
 - a. hypernatremia (sodium excess)
 - b. hyponatremia (sodium deficiency)
 - c. hyperkalemia (potassium excess)
 - d. hypokalemia (potassium deficiency)
 - e. hypercalcemia (calcium excess)
 - f. hypocalcemia (calcium deficiency)
 - g. hypermagnesemia
 - h. hypomagnesemia
1. identify method for determining a patient's acid-base status.
2. identify "normal" ranges of pH, PCO_2 and bicarbonate.
3. differentiate between metabolic and respiratory acidosis and alkalosis.
4. describe ways in which the kidneys, lungs, and cells help maintain acid-base balance:
5. state major causes of acid-base imbalance.
6. formulate nursing management for common acid-base imbalances.

Directions and Learning Activities:

1. Read *Medical-Surgical Nursing*, Timby & Smith, Ch 22.
2. Answer enabling objectives.
3. Attend, be prepared, and participate in class discussions.

Course Title:	Nursing 102
Section Title:	Medical Surgical Nursing
Module #4:	INTRODUCTION TO CARING FOR PEDIATRIC PATIENTS
Content Area:	Growth and development of the child Development of personality and mental function Role of play in development Selected factors that influence development Physical assessment of the child Developmental assessment of the child

Introduction

Pediatric nursing is a specialty that focuses on the child as a being and takes the family into consideration as well. A pediatric patient is not a smaller version of an adult and should not be treated as such. The nurse who cares for a pediatric patient should be aware of the developmental as well as physical differences in comparison to an adult. Understanding how to assess a pediatric patient both developmentally and physically is a skill that the nurse should possess. Applying the knowledge of basic anatomy and physiology along with the nursing process will assist the nurse to care for the pediatric patient.

Goal Statement

Upon successful completion of this module the student will understand the stages of growth and development of the child and the nursing interventions required for each stage. The student will be able to assess a pediatric patient both developmentally and physically and apply this knowledge to the clinical setting.

Unit Objectives

The student will:

1. score 77% or above on all assignments, quizzes and written tests on this topic.
2. appropriately apply the concepts presented in this module in the clinical setting.

Enabling Objectives

The student will:

1. describe major trends in growth and development.
2. explain alterations in major body systems that take place during the process of growth and development.
3. discuss growth and development in relation to personality, cognitive, language, moral, spiritual and self-concept development.
4. describe the role of play in the growth and development of children.
5. demonstrate and understand the role of innate and environmental factors in physical and emotional development of children.
6. prepare a child for a physical exam based on developmental needs.
7. perform a comprehensive physical exam in appropriate sequence based on age.
8. recognize normal findings for children.
9. record findings in head-to-toe format.
10. perform a developmental assessment.

Directions and Learning Activities:

1. Read *Wong's Essentials of Pediatric Nursing*, Chapters 5 - 7.
2. Answer enabling objectives.
3. Attend, be prepared, and participate in class discussions.