I. General Information

Course Title : Fundamentals of Adult Care II
Code and Number : NURS 2233
Credits : Six (6)
Academic Term : 
Professor : 
Office Hours : 
Electronic mail : 
Office Phone Number : 250-1912 Ext. 2159, 2202

II. DESCRIPTION

Discussion of the acute and chronic health dysfunctions related to the functional health patterns: activity-exercise, cognitive-perceptual and sexual reproduction. Includes anatomical, physiopathological, microbiological, biochemical and environmental concepts that affect the adult human functioning. Integration of communication, care management, research, and the nursing process skills and the nursing process in client’s care. Prerequisite: NURS 1231. Corequisites: NURS 2141, 2142.

III. OBJECTIVES

1) Utilizes the nursing process to make decisions that reflect critical thinking skills while providing safe, effective, efficient, timely, and equitable care to the patient/client adult and geriatric with acute and chronic dysfunctions related to functional health patterns: activity-exercise, cognitive-perceptual and sexuality-reproduction. (Nursing process)

2) Offer humanistic care focused on the adult/geriatric patient/client, family and caregivers by promoting a continuous healing relationship considering their needs, values, preferences and cultural beliefs. (Humanistic Care)

3) Demonstrates competence in therapeutic interventions based on evidence with scientific rationale that includes Essentials of anatomy, physiology, pathophysiology, microbiology, biochemistry and environmental concepts that affect human performance of the adult and old. (Health disease)

4) Uses effectively verbal and non-verbal communication skills and technological information that support quality care to the patient/client and the interdisciplinary team. (Communication, health informatics)

5) Applies knowledge based on evidence for the decision making process when offering nursing care to the adult and geriatric patient/client at different stages of growth and development within the context of the family and the community. (Research)

6) Demonstrates effective skills in management and leadership as a member of the health interdisciplinary team to facilitate security and quality improvement of adult and geriatric patient/customer. (Management, TeamSTEPPS and safety)

7) Demonstrates commitment for personal development and professional learning through life. (Leadership and Management)
IV. GRADUATE COMPETENCIES ADDRESSED IN THIS COURSE

1. Apply critical-thinking skills while providing safe effective, efficient, timely, and equitable basic care to the patients/client while implementing the nursing process for decision making. (Nursing process)

2. Offer patient centered care to clients considering their needs, values, preferences, and cultural beliefs. (Humanistic Care)

3. Demonstrates competencies in therapeutic interventions based on scientific evidence, by providing care for the adult for the maintenance and restoration of health in structured scenarios. (Health/disease)

4. Makes use of effective verbal and non-verbal communication including skills of information technology to support quality care to the patient/client and teamwork. (Communication, Health Informatics)

5. Applies knowledge based on evidence for the decision-making process guided by the faculty of nursing by offering care to the adult patient/client within the context of his family. (Research: evidence-based practice)

6. Demonstrate basic leadership characteristics and management skills within the nursing teamwork in order to facilitate patient safety and quality of care. (Leadership /Management; TeamSTEPPS)

V. CONTENT OUTLINE:

COGNITIVE PERCEPTUAL PATTERN

UNIT I: MANAGEMENT OF CLIENT WITH DYSFUNCTION OF THE NEUROLOGICAL SYSTEM

A. Anatomical, physiological, biochemical, microbiological and environmental concepts and foundations of the nervous system essential for the nursing care.

1. Anatomy and physiology of the central, peripheral, and autonomic nervous system
   A. Structural organization of the nervous system
   B. Neurons
      1. General properties and functions
      2. Structure
      3. Classification of neurons and neuroglial cells
      4. Reflex arc
      5. Nerves and tracts
   C. Central Nervous System
      1. Brain
         a. Brain and spinal cord protective coverings: meninges
         b. Circulation of cerebral spinal fluid
         c. Cerebral Hemispheres and lobes
         d. Functions of the cerebral cortex: sensory and motor
         e. Cerebral circulation
         f. Cerebral tracts and basal nucleus
         g. Limbic system
         h. Structures and functions of the brain: brain stem, diencephalon, cerebellum
      2. Spinal cord: structures, functions, and ascending and descending tracts
   D. Peripheral Nervous System
      1. Spinal nerves: structure, areas to supply, Plexus
      2. Cranial nerves: structure, innervation and function
      3. Divisions of the peripheral nervous system
         a. The Somatic Nervous System
b. The Autonomic Nervous System  
   i. Sympathetic and Parasympathetic

2. Principles and foundations of biochemistry related to the nervous system  
   a. Metabolic requirements of nervous tissue  
   b. The blood-brain barrier as a regulator of ions between blood and brain tissue  
   c. Nerve Impulses: electrical conduction  
   d. Chemical synapses by neurotransmitters  
   e. Chemical constituents of CSF

3. Microorganisms related to the nervous system  
   a. Common pathogens of CNS  
   b. Main causes of bacterial meningitis  
   c. Main causes of viral meningitis  
   d. Antibodies that are normally found in the CNS  
   e. The predominant pathogens that may be introduced through a skull fracture  
   f. Chronic Bacterial and Viral Infections in Neurobehavioral diseases

4. Relationship of the nervous system with other human body systems.

B. Physiopathological and environmental concepts and principles in the application of the nursing process to the client with health problems of the nervous system.

1. Assessment  
   a. Subjective and objective data  
   b. Geriatric considerations  
   c. Diagnostic measures

2. Common acute and chronic dysfunctions  
   a. Alzheimer's disease  
   b. Multiple Sclerosis  
   c. Parkinson disease  
   d. Meningitis  
   e. Seizures and Epilepsy  
   f. Brain trauma  
   g. Transient Ischemic Attack (TIA)  
   h. Cerebral Vascular Accident (Stroke)  
   i. Spinal cord trauma

3. Drug Therapy:  
   a. Mechanism of action  
   b. Pharmacokinetics

4. Nursing diagnoses and collaborative problems  
   a. Decline in memory  
   b. Altered sensory perception: Visual, auditory kinesthetic, gustatory, tactile and olfactory  
   c. Acute confusion  
   d. Chronic confusion  
   e. Decrease in intracranial adaptive capacity  
   f. Acute pain  
   g. Chronic pain

5. Planning  
   a. Expected results (NOC)  
      1. Cognitive orientation  
      2. Memory  
      3. Neurological status  
      4. Conduct of Pain Control  
      5. Pain Level  
      6. Control of distorted thoughts
6. **Therapeutic Interventions (NIC)**
   a. Promotion and maintenance of health
   b. Seizure Precautions (2690)
   c. Management of Seizures (2680)
   d. Fall Prevention (6490)
   e. Monitoring increase in intracranial pressure (2590)
   f. Neurological Monitoring (2620)
   g. Memory Training (4760)
   h. Orientation to reality (4820)
   i. Improvement of communication: listening, speaking, visual

7. **Application of therapeutic communication skills**
8. **Investigative findings to implement evidence-based nursing practice**
9. **Use of "Team Stepps" model to promote security goals for the client**
10. **Assessment using NOC criteria.**

**UNIT II: MANAGEMENT OF CLIENT WITH DYSFUNCTION OF VISUAL AND AUDITORY SYSTEM**

A. Anatomical, physiological, biochemical, microbiological and environmental concepts and foundations of the visual and auditory system essential for the nursing care.

1. **Anatomy and physiology of the visual system**
   a. External and internal structures of the eye
   b. Physiology of vision
      1. Refraction
      2. Convergence
      3. Accommodation
      4. Adaptation to light and shadow
   c. Neural pathway of vision
      1. Neural cells of the retina

2. **Principles and foundations of biochemistry related to the visual system**
   a. Physicochemical properties of the eye fluid
   b. Amino acids: importance in vision
   c. Protein pigments and other eye proteins. Importance in the different compartments of the eye
      1. Major ocular enzymes
      2. Principal ocular vitamins

3. **Microorganisms related to the visual system**
   a. The ocular infection: main bacteria’s and viruses

4. **Relationship of the visual system with other human body systems**

B. Physiopathological and environmental concepts and principles in the application of the nursing process to the client with health problems of the visual system.

**CARE TO PATIENT WITH EYE AND VISION PROBLEMS** *(CHAPTER 58: Page 1084)*

1. **Assessment**
   a. Subjective and objective data
   b. Diagnostic measures

2. **Common acute and chronic dysfunctions**
   a. Conjunctivitis
   b. Cataracts
   c. Glaucoma
   d. Diabetic retinopathy
   e. Retinal detachment
   f. Geriatric considerations
3. Drug Therapy:
   a. Mechanism of action
   b. Pharmacokinetics

4. Most common surgeries
5. Nursing diagnoses and collaborative problems
6. Planning
   1. NOC
   2. Therapeutic interventions
      a. “Communication Enhancement: Visual deficit” (4978)
      b. Eye care (1650)

C. Anatomical, physiological, biochemical and microbiological concepts and foundations of the visual and auditory system essential for the nursing care.

1. Anatomy and physiology of the auditory system
   a. Structure of the ear
      1. External
      2. Middle
      3. Internal
   b. Physiology of hearing
   c. Neural hearing pathway
   d. Dynamic and static balance

2. Principles and foundations of biochemistry related to the auditory system
   a. Biochemistry of the endolymph and perilymph
   b. The Cochlear Synapse
   c. Hearing disorders induced by chemicals

3. Microorganisms related to the auditory system
   a. Microflora of the ear canal
   b. Microbial etiology of otitis

4. Relationship of the auditory system with other human body systems

D. Physiopathological and environmental concepts and principles in the application of the nursing process to the client with health problems of the ear.

1. Assessment
   a. Subjective and objective data
   b. Diagnostic measures

2. Common acute and chronic dysfunctions
   a. Conditions affecting the outer ear
      1. Otitis Externa (Swimmers Ear)
   b. Conditions affecting the middle ear
      1. Otitis Media
   c. Conditions affecting the inner ear
      1. Tinnitus
      2. Labyrinthitis
      3. Disease or Meniere syndrome
   d. Hearing loss

3. Drug Therapy:
   a. Mechanism of action
   b. Pharmacokinetics

4. Nursing diagnoses and collaborative problems
5. Planning
   1. NOC
   2. Interventions (NIC)
PATTERN: ACTIVITY/EXERCISE

UNIT III: MANAGEMENT OF CLIENT WITH CARDIOVASCULAR SYSTEM PROBLEMS

A. Anatomical, physiological, biochemical, microbiological and environmental concepts and foundations of the cardiovascular system essential for the nursing care.

1. Anatomy and physiology of the cardiovascular system
   A. Structure of the cardiovascular system
      1. Heart
         a. Structure
            1. Layers of the heart
            2. Chambers
            3. Valves
            4. Blood supply: Systemic and Coronary circulation
            5. Nerve supply
         b. Physiology:
            1. The heart's conduction system: action potential
            2. Normal EKG tracing: interpretation of the waves, complexes, intervals and segments
            3. Events of the cardiac cycle
            4. Heart sounds
      2. Blood vessels
         a. Types
         b. The arterial system
         c. The venous system
         d. The capillary system and microcirculation
         e. Major blood vessels: arteries and veins
   B. Functions of the circulatory system
   C. Physiology of circulation
      1. Systemic circulation
      2. Principles of circulation: Newton's Law, Starling's Law
      3. Regulation of cardiac output
      4. Factors affecting the volume of ejection
      5. Factors that affect heart rate: Baroreceptors and pressor reflex
      6. Peripheral resistance and blood pressure
         a. Blood viscosity
         b. Vasomotor control mechanisms
         c. Local control of arterioles
      7. Mechanism of venous return to the heart

2. Principles and foundations of biochemistry related to the cardiovascular system
   1. Biochemical markers of cardiac function
   2. Humoral control of circulation: humoral factors
   3. Autonomic regulation of circulatory function: neurotransmitter
   4. Hemodynamic blood flow: gradients of pressure, resistance, and flow into the circulation

3. Microorganisms related to the cardiovascular system
   1. Etiologic agents in endovascular infection
   2. Etiology of septic shock
   3. Microorganisms that infect the endocardium
   4. Microorganism via bloodstream (bacteremia)

4. Relationship of the cardiovascular system with other human body systems.
B. Physiopathological and environmental concepts and principles in the application of the nursing process to the client with health problems of the cardiovascular system.

1. Vital statistics
2. Risk Factors
3. Lifestyle influence (Cultural)
4. Importance of education
5. Assessment
   a. Subjective and Objective data
   b. Diagnostic Measures
   c. Aging associated cardiovascular and peripheral vascular changes

6. Common acute and chronic dysfunctions
   a. Angina pectoris (acute coronary syndrome)
   b. Myocardial Infarction
   c. Dysrhythmia (ACLS Algorithms)
   d. Management of patients with pacemaker
   e. Heart failure
   f. Cardiogenic shock
   g. Atherosclerosis/ arteriosclerosis
   h. Peripheral Vascular Disease PVD & PAD
   i. Thrombophlebitis
   j. Hypertension

7. Drug Therapy:
   a. Mechanism of action
   b. Pharmacokinetics

8. Most common surgeries

9. Nursing diagnoses and collaborative problems
   a. Activity Intolerance
   b. Decreased cardiac output
   c. Alteration in tissue perfusion: cardiopulmonary
   d. Self-care deficit

10. Planning
    a. NOC
        1. Conservation of energy
        2. Effectiveness in the heart pump
        3. Circulatory status
        4. Tissue perfusion: cardiac
        5. Vital signs status

11. Interventions (NIC)
    a. Energy management (0180)
    b. Cardiac care (4040)
    c. Cardiac care: acute (4044)
    d. Circulatory care (4060)
    e. Emergency care (6200)
    f. Resuscitation (6320)
    g. Embolism precaution (4110)
    h. Reviewing emergency cart
    i. Monitoring vital signs (6680)
    j. Circulatory care: arterial insufficiency (4062)
    k. Circulatory care: venous insufficiency (4066)
    l. Dysrhythmia management (4090)
    m. Cardiogenic shock management (4254)
    n. Health promotion and maintenance

12. Research findings to implement evidence-based nursing practice

13. Use of the "TeamSTEPPS" model to promote security goals for the client.
UNIT IV: MANAGEMENT OF THE CLIENT WITH RESPIRATORY TRACT PROBLEMS

A. Anatomical, physiological, biochemical and microbiology concepts and foundations of the respiratory system essential for the nursing care.

1. Anatomy and physiology of the respiratory system
   A. Functions of the respiratory system
   B. Upper respiratory system
      1. Chest
      2. Upper respiratory tract
   C. Lower respiratory tract
      1. Bronchi
      2. Bronchioles
      3. Alveolar structure
      4. Lungs
      5. Pleura
      6. Pulmonary circulation
      7. Innervation of the lungs
   E. Physiology of respiration
      1. Ventilation and breathing cycle
      2. Volumes and lung capacities
      3. Types of breathing
      4. Gas exchange in the lungs
         a. Diffusion of gases between air and blood and arterial blood and tissues
         b. Transportation of O₂ and the dissociation curve of oxygen / haemoglobin
         c. Transportation of CO₂ in the blood: dissolved CO₂, Carbamino compounds, bicarbonate, CO₂ and pH
      5. Exchange of gases at the systemic level
      6. Neural and chemical control of breathing
         a. Respiratory control centers
         b. Chemoreceptors: Pco₂, Po₂, pH
         c. Baroreceptors
         d. Hering-Breuer reflex
      7. Normal breath sounds

2. Concepts of physics related to the respiratory system
   1. Law of gravity
   2. Pressure gradients
   3. Impulse
   4. Power
   5. Concept of elasticity
   6. Liquids

3. Principles and foundations of biochemistry related to the respiratory system
   1. Basic properties of gases
   2. Partial pressure of gases in atmospheric air
   3. The hemoglobin molecule
   2. Effect of the superficial tension / role of surfactant in respiration
      1. Acid base balance
         a. Respiratory mechanism for pH control
         b. Respiratory acidosis
         c. Respiratory alkalosis

4. Microorganisms related to the respiratory system
1. Alveolar macrophages
2. Respiratory tract natural superior - Microflora and defense mechanisms
3. Respiratory tract natural inferior - Microflora and defense mechanisms
4. Asthma:
   a. Respiratory syncytial virus (RSV) and parainfluenza
   b. The rhinovirus
   c. The bacteria's Haemophilus influenzae, S. pneumoniae, S. beta-hemolytic, S. aureus and Chlamydia pneumoniae
   d. The fungus Aspergillus fumigatus
5. Emphysema:
   a. Neutrophil elastase
   b. Vaccination against influenza and pneumococcal pneumonia
6. Bronchitis:
   a. Virus: The influenza virus, parainfluenza virus, respiratory syncytial virus, the coronavirus, adenovirus and the rhinovirus
   b. Bacteria: Bordetella pertussis, Chlamydia pneumoniae y Mycoplasma pneumoniae
7. Lung Cancer
   c. Pluripotent stem cell or "stem cell" capable of expressing different phenotypes.
   d. Inhibition of apoptosis
8. Pneumonia:
   e. Streptococcus pneumoniae, Haemophilus influenzae de type b (Hib), respiratory syncytial virus, Pneumocystis jiroveci pneumonia, Mycoplasma pneumoniae.
9. Tuberculosis
   f. Mycobacterium tuberculosis
10. Inhalation of Anthrax
    g. Bacillus anthracis
11. Avian Influenza
    h. Virus influenza A H5N1, Virus influenza A (H7N9)
12. The septic pulmonary embolism
    a. Staphylococcus aureus Methicillin-resistant acquired in the community (MRSA-AC)
13. Infectious causes of pneumothorax
    a. Tuberculosis, Atypical Mycobacterial infections, bacterial pneumonia and broken septic pulmonary infarcts. Pneumocystis jiroveci in patients with HIV.

5. Relationship of the respiratory system with other systems of the body

B. Physiopathological and environmental concepts and principles in the application of the nursing process to the client with health problems of the respiratory system.

1. Vital statistics
2. Risk factors
3. Lifestyle influences
4. Importance of education
5. Assessment
   a. Subjective and Objective data
   b. Diagnostic measures
   c. Changes in the respiratory system associated with aging.

6. Common acute and chronic dysfunctions
   a. Asthma
   b. Status Asthmaticus
   c. COPD
      1. Chronic Bronchitis
      2. Emphysema
   d. Pneumonia
   e. Lung Cancer
   f. Tuberculosis
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7. Drug Therapy:
   a. Mechanism of action
   b. Pharmacokinetics

8. Most common surgeries

9. Nursing Diagnosis and collaborative problems
   a. Ineffective breathing pattern
   b. Ineffective cleaning of air routes
   c. Inability to maintain spontaneous breathing
   d. Ventilatory response
   e. Impaired Gas Exchange

10. Planning
    a. NOC
       1. Respiratory status: Gas Exchange
       2. Respiratory status: Ventilation
       3. Muscle function
       d. Anxiety Control

11. Interventions (NIC)
    a. Airway Management (3140)
    b. Respiratory Management (3350)
    c. Tube chest care (1872)
    d. Mechanical Ventilation (3300)
    e. Acid base management: Respiratory Acidosis (1913)
    f. Acid base management: Respiratory Alkalosis (1914)
    g. Ventilation assistance (3390)
    h. Health promotion and maintenance

12. Research findings to implement evidence-based nursing practice

13. Use of "TeamSTEPPS" models to promote goals of security for the customer


UNIT V: MANAGEMENT OF CLIENT WITH DYSFUNCTION OF THE HEMATOLOGIC SYSTEM

A. Anatomical, physiological, biochemical and microbiological concepts and foundations of the hematologic system essential for the nursing care.

1. Hematological system
   A. Blood
      1. Physical and chemical composition of blood.
      2. Functions of blood
      3. Element forms
         a. Red blood cells
            1. Function
            2. Training
            3. Destruction
         b. White cell
            1. Classification
            2. Description
            3. Function
         c. Platelets
            1. Description
            2. Function
            3. Formation
4. Blood groups
   a. Blood types
   b. System Rh
   c. Compatibility
   d. Incompatibility

5. Blood plasma

6. Homeostasis: Interruption of the hemorrhage
   a. Mechanisms of coagulation
   b. Fibrinolysis

2. Physical principles related to hematologic system
   A. Newton's second law
   B. Viscosity
   C. Gradient

3. Principles and foundations of biochemistry related to the hematologic system.
   A. Important biochemical substances in the blood: proteins, ions, gases and biomolecules
   B. Blood Count: Normal Values
   C. Intrinsic factor
   D. Extrinsic and intrinsic coagulation pathway
   E. The hemoglobin molecule: oxyhemoglobin, biosynthesis and catabolism of heme group

4. Principles of Microbiology related to hematologic system
   A. The blood as a route of transmission of pathogens
   B. Changes in the blood as part of the defenses of the organism against infection
   C. Non-specific mechanism of blood: white blood cells
   D. Specific mechanisms of blood: antibodies
   E. Blood cultures and the role of nursing in the collection of clinical specimens

5. Relationship of the hematologic system with other systems of the body

B. Physiopathological and environmental concepts and principles in the application of the nursing process to the client with health problems of the hematology system.

1. Vital statistics
2. Risk factor
3. Lifestyle influence and the importance of nutrition in the formation of blood elements.
4. Assessment
   a. Subjective and Objective data
   b. Diagnostic measures
   c. Changes in hematological system associated with aging
   d. Assessment of the hematologic system
   e. Normal values of blood tests

5. Common acute and chronic dysfunctions
   a. Anemia resulting from the increase in destruction of red cells
      1. Iron deficiency anemia
      2. Anemia due to Vitamin B12 deficiency
      3. Anemia due to folic acid deficiency
      4. Sickle Cell Anemia
      5. Aplastic Anemia
      6. Anemia in renal failure
   b. Polycythemia
   c. Leukemia
   d. Hodgkin’s Lymphoma
   e. Platelets disorders and coagulation, Vit. K deficiency factors
   f. Hemophilia

6. Blood Transfusions

7. Drug Therapy:
   a. Mechanism of action
b. Pharmacokinetics

8. Related Nursing Diagnoses
   a. Fatigue
   b. Risk for falls

9. NOC
   a. Nutritional status: energy
   b. Conduct of Security: Fall Prevention

10. NIC
    a. Nutritional Management (1100)
    b. Fall Prevention (6490)

11. Research findings to implement evidence-based nursing practice.

12. Use of “Team Stepps” models to promote goals of security for the customer

13. Assessment using NOC criteria

UNIT VI: MANAGEMENT OF CLIENT WITH PROBLEMS OF THE MUSCULOSKELETAL SYSTEM
A. Anatomical, physiological, biochemical and microbiological concepts and foundations of the musculoskeletal system essential for the nursing care.

1. Anatomy and physiology of the musculoskeletal system
   1. Skeletal tissue
      a. Functions of bone
      b. Bone tissue: cells, bone marrow, and bone marrow cancer
      c. Types of bone
      d. Parts of bone
   2. Skeleton divisions
      a. Axial skeleton
         1. Skull
            a. Bones of the skull
            b. Facial bones
            c. Eye orbit
         2. Hyoid bone
         3. Spine
         4. Sternum
         5. Ribs
      b. Appendicular skeleton
         1. Upper extremity
         2. Lower Extremity
   3. Difference between male and female skeleton
   4. Joint classification
      A. Fibrous joints (synarthrodial)
      B. Cartilaginous joints (synchrondrosis and symphys)
      c. Synovial joints (Diarthrosis)
   5. Types and range of motion in the synovial joints
   6. Tendons and ligaments
   7. Structure and functions of the muscular system
      a. Structure of skeletal muscle
      b. Function of skeletal muscle tissue
      c. Mechanism of contraction: excitation of the sarcolema, contraction and relaxation
      d. Function of the skeletal muscle organs: motor unit, twitching, muscle tone
   8. The important skeletal muscles
      a. Muscles of facial expression
      b. Muscles of mastication
      c. Muscles that move the head
      d. Muscles of the trunk
e. Upper limb muscles
f. Muscles in lower extremities

9. Definition of posture and its importance

10. Physical principles related to the skeletal system
   a. Principles of mechanics
   b. Principles of gradual force
      1. Isotonic and isometric contractions

11. Principles and foundations of biochemistry related to the musculoskeletal system
   a. Chemical composition of the bone matrix
   b. Mechanism of calcium homeostasis
   c. Skeletal muscle metabolism
      a. Sources of energy for muscle contraction
         1. ATP
         2. Glucose and oxygen
         3. Aerobic and Anaerobic respiration
         4. Heat Production

12. Microorganisms related to the musculoskeletal system
   a. Clostridium Tetani
   b. Microorganisms isolated from osteomyelitis

13. Relationship of the musculoskeletal system with other systems of the body

B. Physiopathological and environmental concepts and principles in the application of the nursing process to the client with health problems of the musculoskeletal system.

1. Vital statistics
2. Risk factors, prevention and genetics to the main health problems of the musculoskeletal system.
3. Lifestyle influence on health problems of the musculoskeletal system
4. Importance of education for the prevention of health problems of the musculoskeletal system
5. Assessment
   a. Subjective and Objective data
   b. Diagnostic measures
   c. Changes associated with aging musculoskeletal system
   d. Assessment of the musculoskeletal system

6. Acute and chronic dysfunctions
   a. Bone cancer
   b. Fractures
   c. Lumbosacral Back Pain
   d. Amputations
   e. Carpal Tunnel Syndrome
   f. Osteoporosis
   g. Osteomyelitis

7. Drug Therapy:
   a. Mechanism of action
   b. Pharmacokinetics

8. Most common surgeries

9. Nursing diagnosis and collaborative problems
   a. Mobility Impairment
   b. Risk for Disuse Syndrome

10. Planning
   a. NOC
      i. Level of Mobility

11. Interventions (NIC)
   a. “Bed Rest Care” (0740)
   b. Care for plaster cast: wet (0764)
   c. Care for plaster cast: maintenance (0762)
d. Care immobilization / traction (0940)
e. Exercise therapy: Joint mobility (0224)
f. Promotion of Exercise (0200)
g. Promotion and maintenance of health

12. Research findings to implement evidence-based nursing practice.
13. Use of “Team Stepps” models to promote goals of security for the customer
14. Assessment using NOC criteria

**FUNCTIONAL PATTERN: SEXUAL / REPRODUCTIVE**

**UNIT VII: MANAGEMENT OF THE CLIENT WITH SEXUAL REPRODUCTIVE PROBLEMS**

A. Anatomical, physiological, biochemical and microbiological concepts and foundations of the sexual/reproductive system essential for the nursing care.

1. **Anatomy and physiology of the Reproductive system**
   a. Review of the functions of the male and female reproductive system
   b. Review of the anatomical structures of the female and male reproductive system
      a. Breasts
         1. Location and size
         2. Structure of the breasts
         3. Function of the breasts
      b. Prostate
         1. Structure and location
         2. Function

2. **Principles and foundations of biochemistry related to the sexual /reproductive system**
   a. Estrogens as initiators in mammary carcinogenesis
   b. Disrupting the biological rhythm increases the risk of breast cancer
   c. “Prostate specific antigen (PSA) level”.
   d. Mutations in prostate cancer genetics

3. **Microbiology related to the female and male reproductive system**
   a. Fibroblasts associated with carcinoma (CAF) also called fibroblasts associated with tumor (TAF), macrophage-associated tumor (TAM), extracellular matrix, blood and lymphatic vessels, fat cells and lymphoid in breast cancer
   b. Stem cells called Notch y Hedgehog in prostate cancer
   c. Effect of the endocrine system in genitourinary tissue
   d. Relationship of the sexual/reproductive system with other systems of the body

B. Physiopathological and environmental concepts and principles in the application of the nursing process to the client with health problems of the sexual/reproductive system.

1. **Vital statistics**
2. **Assessment of male and female genital reproduction system**
3. **Risk Factors, prevention and genetics of the main health problems of the sexual/reproductive system. Risk factors for breast cancer.**
4. **Lifestyle influences on the health problems of the reproductive system.**
5. **Importance of education for the prevention of health problems of the sexual/reproductive system.**
6. **Assessment**
   a. Subjective and Objective data
   b. Diagnostic measures
   c. Changes in sexual-reproductive system associated with aging
   d. Assessment of the female and male reproductive system

7. **Common acute and chronic dysfunctions**
   a. Breast Cancer
   b. Prostate Cancer

8. **Drug therapy:**
a. Mechanism of action  
b. Pharmacokinetics  

9. Most common surgeries

10. Nursing diagnosis and collaborative problems  
a. Ineffective patterns of sexuality  
b. Sexual Dysfunction

11. Planning. NOC

12. Nursing interventions (NIC)

13. Promotion and health maintenance


15. Use of "Team Stepps" models to promote goals of security for the customer.

16. Assessment using NOC criteria

VI. LEARNING ACTIVITIES

Case studies  
Study guides  
Group discussion  
Discussion in small groups  
Questions and answers  
Independent studies  
Additional readings  
Animations/virtual simulations  
Evaluation  
Videos  
NLN (assessment)

VI. EVALUATION

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>POINTS</th>
<th>PERCENT OF FINAL GRADE</th>
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<tr>
<td>Partial exam #1</td>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>Partial exam #2</td>
<td>100</td>
<td>20</td>
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<tr>
<td>Partial exam #3</td>
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<td>20</td>
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<tr>
<td>Comprehensive final exam # 4</td>
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<td>20</td>
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<tr>
<td>Assignments and/or quizzes, oral/face-to-face presentations, With evaluations criteria</td>
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<td>15</td>
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<tr>
<td>Study Guides, Illustrations, portfolio, learning modules</td>
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<td></td>
</tr>
<tr>
<td>NLN online testing</td>
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<td>05</td>
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<td>TOTAL</td>
<td>600</td>
<td>100</td>
</tr>
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</table>

VII. SPECIAL NOTES

A. Supporting Services or Special Needs

Students requiring additional services or special assistance must request these at the beginning of the course or as soon as they learn that they need them, through the appropriate register in the office of Mr. Jose Rodriguez, at the University Orientation Program located at the first floor of Harris Building.

B. Honesty, Fraud and Plagiarism

The lack of honesty, fraud, plagiarism and any other inadequate behavior in relation to academic work constitute major infractions sanctioned by General Student Regulations. Major infractions, according to General Regulation Students, may result in suspension from the University for a definite period of time greater than one year or the permanent expulsion from the University, among others sanctions.
C. Use of Electronic Devices
Cellular (mobile) telephones, IPODS, and any other electronic device that could interrupt the teaching-learning process or disrupt a milieu favorable for academic excellence will be deactivated. Critical situations will be dealt with in an appropriate manner. The use of electronic devices that permit the accessing, storing or sending of data during tests or examinations is prohibited.

D. Special Requirements of Practice and Internship Centers
Some academic programs of the University require students to complete a practice or internship in a real work scenario as part of the degree requirements. These external centers may be state and federal agencies, hospitals, and nongovernmental organizations, among others. It is students' responsibility to comply with the external center's requirements in order to complete their practice or internship. Depending on the practice center, these requirements may be doping tests, HIV tests, an immunization certificate against hepatitis, a health certificate, a negative criminal record, or any other requirement that the institution or practice center may stipulate. If students refuse or are not able to meet any of the requirements, they will be unable to complete their practice or internship and, therefore, will not pass the practice or internship course or meet the graduation requirements of their academic program.

VIII. EDUCATIONAL RESOURCES

Text Book


IX. BIBLIOGRAFY

A. Integrated sciences


B. Nursing


Web Sites

The Cochrane Collaboration
www.cochrane.org

National Guideline Clearinghouse
www.guidelines.gov

Teaching Smart – Learning Easy
Rosalinda Alfaro-Lefebvre
www.alfaroteachsmart.com

Program of Culturally Competent Nursing Care – Cornerstone of Caring
U.S. Department of Health & Human Services
Office of Minority Health
www.thinkculturalhealth.org
http://neurology.stanford.edu/epilepsy/patientcare/e_videos.html

TEAM STEPPS model

U.S. Department of Health & Human Services
Agency for Healthcare Research & Quality
http://teamstepps.ahrq.gov/

The Joint Commission – National Patient Safety Goals
http://www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/

The Joint Commission - Introduction to the Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery™

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American Nurses Association
www.nursingworld.org

National Council of State Boards of Nursing (NCSBN)
https://www.ncsbn.org/index.htm

National Institute of Nursing Research
www.ninr.nih.gov

Clinical Practice Guidelines Online
http://www.ahrg.gov/clinic/cponline.htm

Institute of Healthcare Improvement (IHI)
www.ihi.org

American Society of PeriAnesthesia Nursing ASPAN)
Pain and Comfort Clinical Guideline

Institute of Medicine Core Competencies for Health Professionals
http://www.iom

National Cancer Institute
www.cancer.gov/

American Diabetes Association
http://www.diabetes.org/

Braden Scale

ACTUALICED: 06/ 2016