I. TITLE OF COURSE : FUNDAMENTALS OF ADULT CARE II

Code & number : NURS 2233
Credits : Six (6)

II. DESCRIPTION

Discussion of acute and chronic health dysfunctions in relation to the functional health patterns: activity-exercise, cognitive-perceptual, and sexual-reproductive. Includes concepts of Anatomy, Physiology, Microbiology, Biochemistry, and environments, which affect adult human functioning. Integration of communication skills, health care, research, and the nursing process, in the care of the client. Requires a total of 30 additional hours in the integrated sciences laboratory. Requisite: NURS 1231. Concurrent with NURS 2141 & 2142.

III. TERMINAL & SPECIFIC OBJECTIVES

Cognitive-Perceptual

1. At the end of the discussion of the pattern cognitive-perceptual, the student will have the capacity to discuss concepts of Anatomy & Physiology, Biochemistry and environments related of the nervous system.
   1.1 Describe functions of the nervous system.
   1.2 Discuss the importance of the meninges & cerebrospinal fluids.
   1.3 Distinguish between different types of neurons & tissues.
   1.4 Clarify functions of the nervous system structure, central & peripheral.
   1.5 Explain the transmission process of the passage of nervous impulses
   1.6 Describe location & function of audio and visual structures.
   1.7 Explain the Physiology of the eye and ear.
   1.8 Describe the neural route of vision and hearing

2. At the end of the discussion of Biophysiological aspects of the pattern: cognitive-perceptual, the student will apply the nursing process with acute and chronic conditions to prevent illness and promote, maintain, and restore health.
2.1 Identify findings & diagnostic measures to consider in assessing the pattern cognitive-perceptual.

2.2 Explain pathology & treatment for more common neurological, visual, and auditory conditions.

2.3 Use the nursing process as a tool to provide care to individuals with neurological & perceptual conditions, within the context of the family.

2.4 Clarify nursing care, taking into consideration the ethical context, standards of practice, diverse culture & human dignity.

2.5 Outline therapeutic interventions that contribute to the promotion, maintenance and restoration of health.

2.6 Describe Physiological changes that occur in the geriatric patient and plan their care.

2.7 Explicate the importance of research findings to improve care of individuals with chronic and acute conditions that alter the nervous, visual and audio systems.

Activity & Exercise

1. At the end of the discussion of the pattern: activity and exercise, the student will have the capacity to discuss Anatomical, Physiological, Biochemical and environmental concepts related to the muscular-skeletal system.
   1.1 Summarize the functions of the musculoskeletal system
   1.2 Describe the following structures: bones, muscles, cartilage, ligaments, tendons, fascia, & bursa.
   1.3 Describe the different types of bones.
   1.4 Define diaphysis, metaphysis, & epiphysis
   1.5 Distinguish between diarthrosis, amphiarthrosis, & synarthrosis in the human body.
   1.6 Describe the structures that compose a diarthrotic joint.
   1.7 Explain the importance of osteon and the sarcomere.
   1.8 Contrast the different types of muscles.
   1.9 Enumerate the processes (paths) of muscle contraction.

2. At the end of this course, the student will be able to apply Biophysiological concepts of the muscular-skeletal system, using the nursing process, with acute and chronic conditions, to prevent illness and promote, maintain, and restore health...
   2.1 Identify findings & diagnostic methods to consider in assessing the musculoskeletal system.
   2.2 Discuss pathology & treatment of common musculoskeletal system disorders.
   2.3 Discuss the importance of research findings in the administration of care.
2.4 Utilize the nursing process as a tool to provide care to individuals with musculoskeletal dysfunctions, within the context of the family.
2.5 Discuss the nursing care in the ethical-legal context, considering the standards of nursing practice, cultural diversity, and human dignity.
2.6 Compile therapeutic interventions that contribute to the promotion, maintenance and restoration of health.
2.7 Consider the physiological factors that occur in the geriatric patient when planning nursing care.
2.8 Debate the importance of research findings to improve care to individuals with acute and chronic conditions, with alterations in musculoskeletal function.

3. At the end of this section on the pattern: activity & exercise, the student will have the capacity to discuss concepts of: Anatomy, Physiology, Biochemistry, and environments related to the Hematologic system.
3.1 Explain the function of the heart.
3.2 Explain the properties of the myocardium, including automaticity, excitability, conductivity and contractility.
3.3 Describe basic cardiac structures.
3.4 Discuss the process of cardiac conduction and circulation.
3.5 Distinguish the difference between systole and diastole within the cardiac circulation.
3.6 Discuss the importance of cardiac output measurement.
3.7 Compare the structure and function of arteries, veins capillaries, and lymphatics.
3.8 Describe the dynamics of blood circulation, peripheral resistance and arterial pressure.
3.9 Identify the functioning of the lymphatic system.
3.10 Describe the function and composition of the Hematologic system.
3.11 List the types of blood groups.

4. After the final class on discussion of Biophysiological aspects of the Cardiovascular & Hematologic system, the student will apply the nursing process to acute and chronic conditions to prevent illness, and promote, maintain, and restore health.
4.1 Identify findings and diagnostic measures to consider in assessment of the Hematologic, cardiac, and peripheral vascular systems.
4.2 Explain the pathology and treatment of common acute and chronic conditions.
4.3 Use the nursing process as a tool to provide care to individuals with cardiovascular and hematological dysfunction, within the context of the family.
4.4 Discuss nursing care to consider in the context of: ethics, standards of practice, cultural diversity, and human dignity.
4.5 Consider Physiological changes that occur in the geriatric patient when planning care.
4.6 Discuss therapeutic interventions that contribute to the promotion, maintenance, and restoration of health.
4.7 Debate the importance of research findings to improve care of individuals with acute and chronic conditions which alter cardiovascular functioning.

5. By the end of this section, the pattern of: activity – exercise the student will have the capacity to discuss concepts of Anatomy, Physiology, Biochemistry, and environmental factors related to the respiratory system.
5.1 Describe basic structure and function of the superior and inferior respiratory tract.
5.2 Discuss the process of respiratory regulation.
5.3 Explain the mechanisms of pulmonary ventilation, pulmonary circulation and gas exchange.
5.4 Establish a relationship between perfusion and ventilation
5.5 Explain the process of oxygen transport and carbon dioxide.
5.6 Describe the chemical and mechanical control of respiration.

6. At the end of this section on the Biophysiological aspects of the respiratory system the student will apply the nursing process to acute and chronic conditions for illness prevention, and promotion, maintenance, and restoration of health.
6.1 Identify findings and diagnostic measures to consider when assessing the Respiratory pattern.
6.2 Explain the pathology and treatment of common respiratory conditions.
6.3 Use the nursing process as a tool to provide care to individuals with respiratory conditions within the context of the family.
6.4 Discuss nursing care, considering the following: ethical context, standards of practice, cultural diversity, and human dignity.
6.5 Consider physiological changes that occur in the geriatric patient when planning their care.
6.6 Discuss therapeutic interventions that contribute to the promotion, maintenance, and restoration of health.
6.7 Explore the importance of research findings to improve the care of individuals with acute and chronic conditions which alter their respiratory functioning.

**Pattern: Sexual-Reproduction**

1. At the end of this unit, the pattern: Reproduction, the student will apply the nursing process to acute and chronic dysfunctions to prevent illness, and promote, maintain, and restore health.
1.1 Identify findings and diagnostic measures that are to be considered in assessment of the pattern: Sexual-reproductive.

1.2 Explain pathology and treatment of the more common conditions that affect this pattern.

1.3 Use the nursing process as a tool to provide care to individuals within the context of the family.

1.4 Discuss nursing care to be considered in the following context: Ethical, standards of practice, cultural diversity, and human dignity.

1.5 Consider physiological changes that occur in the geriatric patient when planning their care.

1.6 Explore the importance of research findings to improve the care of individuals with acute and chronic conditions which alter their respiratory functioning.

IV. CONTENT:

A. Pattern: Cognitive-perceptual

1. Concepts of: Anatomy, Biophysiology and Biochemistry of the Nervous system
   a. Nervous System
      1) Types of neurons
      2) Neural tissue
      3) Meninges
      4) Cerebrospinal fluids
   b. Central Nervous System (CNS)
      1) Brain
      2) Cerebral cortex
      3) Limbic system
      4) Cerebellum
      5) Cranial lobes
      6) Diencephalon
      7) Mesencephalon (midbrain)
      8) Spinal cord
   c. Peripheral Nervous System
      1) Spinal nerves
      2) Somatic nervous system
      3) Autonomic nervous system
         (a) sympathetic branch
         (b) parasympathetic branch

2. Nursing process applied to acute and chronic conditions of the pattern: cognitive-perceptive of the nervous system
   a. Assessment
      1) Subjective and objective data
      2) Geriatric considerations
      3) Diagnostic tests (exams)
   b. Common acute and chronic conditions
1) Cerebrovascular Accident (stroke)
2) Diminished levels of consciousness
3) Transient Ischemic Attacks (TIAs)
4) Parkinson’s
5) Alzheimer’s
6) Hepatic encephalopathy
7) Convulsions
8) Multiple Sclerosis
9) Elevated intracranial pressure
10) Brain and spinal cord trauma
11) Myasthenia Gravis
12) Others

c. Nursing Diagnosis and Collaborative Problems
d. Planning
   1) Nursing Outcomes Category (NOC)
e. Therapeutic Interventions
   1) Promotion and maintenance of health
   2) Convulsive precautions (2690)
   3) Management of convulsions (2680)
   4) Prevention of falls (6490)
   5) Monitoring elevated intracranial pressure (2590)
   6) Neurological monitoring (2620)
f. Interpreting research findings

   a. External & internal structures of the eye
   b. Physiology of vision
      1) Refraction
      2) Convergence
      3) Accommodation
      4) Light and shadow adaptation
   c. Neural route for vision
      1) Neural cells of the retina

4. Nursing process applied to acute and chronic conditions of the pattern: Cognitive-perceptual: vision
   a. Assessment
      1) Subjective and objective data
      2) Geriatric considerations
      3) Diagnostic values (measures)
   b. Common acute and chronic dysfunctions
      1) Refractive disorders
      2) Retinal detachment
      3) Diabetic retinopathy
      4) Presbyopia (farsightedness)
      5) glaucoma
6) Cataracts
7) Conjunctivitis
8) Traumas
c. Nursing Diagnoses & Collaborative Problems
d. Planning
   1) NOC
e. Therapeutic Interventions
   1) Communication Enhancement: Visual deficit (4978)
   2) Eye care (1650)
   3) Promotion & maintenance of health
f. Interpreting research findings
   a. Structures of the ear
      1) External
      2) Middle ear
      3) Internal
   b. Physiology of hearing
   c. Neural route of hearing
   d. Equilibrium: dynamic and static
6. Nursing process applied to acute and chronic dysfunctions of the pattern: Cognitive-perceptive: Hearing
   a. Assessment
      1) Subjective & objective data
      2) Geriatric considerations
      3) Diagnostic tests (exams)
   b. Common acute and chronic dysfunctions
      1) Otitis
      2) Hearing loss
      3) Menier's Syndrome
      4) Labrynthitis
      5) Traumas
   c. Nursing Diagnosis and Collaborative Problems
d. Planning
   1) NOC
e. Therapeutic Interventions
   1) Communication Enhancement: Hearing deficit (4974)
   2) Ear Care (1640)
   3) Promotion & maintenance of health
f. Interpretation of Research Findings
B. Pattern: Activity-exercise
      a. Functions of the musculoskeletal system
b. Types of bones

c. Types of articulations (Joints)

d. Related structures of the musculoskeletal system
   1) Cartilage
   2) Ligaments
   3) Tendons
   4) Fascia
   5) Bursa

e. Types of muscles

f. Sarcomere & myofibrils

g. Muscular contraction

2. Nursing process applied to acute and chronic dysfunctions of the musculoskeletal system.
   a. Assessment
      1) Subjective and Objective data
      2) Diagnostic measures (tests)
      3) Considerations of advanced age
   b. Common acute and chronic dysfunctions
      1) Fractures
      2) Rheumatoid Arthritis
      3) Bursitis
      4) Osteoarthritis
      5) Scoliosis
      6) Gout
      7) Osteomyelitis
      8) Osteoporosis
      9) Amputations
      10) Back pain
      11) Muscular Dystrophy
      12) Fibromyalgia

c. Nursing Diagnosis and Collaborative problems

d. Planning
   1) NOC

e. Interventions (NIC)
   1) Care of wet cast (0764)
   2) Care of cast: maintenance (0762)
   3) Care of immobilization/traction (0940)
   4) Exercise therapy: mobility of joints (0224)
   5) Exercise promotion (0200)
   6) Promotion and maintenance of health

f. Interpreting research findings

3. Cardiovascular
   a. Assessment
      1) Subjective and objective data
      2) Diagnostic test (exams)
      3) Consideration of advanced age
b. Common Acute and Chronic dysfunctions
   1) Endocarditis
   2) Myocarditis
   3) Pericarditis
   4) Rheumatic Fever
   5) Angina pectoris (coronary syndrome)
   6) Myocardial Infarct (MI)
   7) Cardiac Failure
   8) Cardio-respiratory failure
   9) Valvular alterations
   10) Dysrhythmias
   11) Hypertension
   12) Arteriosclerosis & arteriostenosis
   13) Thrombophlebitis
   14) Arterial embolus
   15) Anemia
   16) Polycythemia
   17) Lymphadenitis
   18) Thrombocytopenia
   19) Lymphadema

c. Nursing Diagnosis and Collaborative Problems

d. Planning
   1) NOC

e. Interventions (NIC)
   1) Cardiac Care (4040)
   2) Cardiac Care: acute (4044)
   3) Care of insufficient arterial circulation (4062)
   4) Care of insufficient venous circulation (4066)
   5) Management of Dysrhythmias (4090)
   6) Management of cardiogenic shock (4254)
   7) Promotion and maintenance of health

f. Interpretation of research findings

4. Respiratory
   a. Assessment
      1) Subjective and objective data
      2) Diagnostic tests (exams)
      3) Consideration of advanced age
   b. Common acute and chronic dysfunctions
      1) Sinusitis
      2) Laryngitis
      3) Nasal Fracture
      4) Pneumothorax
      5) Pulmonary edema
      6) Pulmonary embolus
      7) Bronchitis
      8) Pneumonitis
9) Tuberculosis
10) Dengue
11) COPD
12) Bronchial Asthma
13) Emphysema
14) Respiratory insufficiency or failure
15) Neoplasia
16) Pharyngitis
17) Others

c. Nursing Diagnosis and Collaborative Problems
d. Planning
   1) NOC
e. Interventions (NIC)
   1) Airway management (3140)
   2) Respiratory monitoring (3350)
   3) Care of chest tubes (1872)
   4) Mechanical ventilation (3300)
   5) Acid-base management: Respiratory acidosis (1913)
   6) Acid-base management: Respiratory alkalosis (1914)
   7) Promotion and maintenance of health

f. Interpretation of research findings

C. Pattern: Sexual-reproductive
1. Concepts of: Anatomy, Biophysiology, Biochemistry of the reproductive system
   a. Anatomical structures of the reproductive system
      1) Female
      2) Male

2. Nursing process applied to acute and chronic dysfunctions of the pattern: Sexual-reproductive.
   a. Assessment
      1) Subjective and objective data
      2) Diagnostic exams (tests)
      3) Consideration of advanced age
      4) Cultural diversity
   b. Common acute and chronic dysfunctions
      1) Hydrocele
      2) PID
      3) Endometriosis
      4) BPH
      5) Breast cancer
      6) Prostate cancer
      7) Uterine cancer
      8) Prostatitis
      9) Uterine prolapse
     10) Uterine displacement
c. Nursing Diagnosis and Collaborative Problems

d. Planning
   1) NOC

e. Interventions (NIC)
   1) Promotion and maintenance of health

f. Interpretation of research findings

V. ACTIVITIES

A. Hypothetical situations
B. Study guides
C. Group discussions
D. Questions and answers
E. Division into small groups
F. Independent study
G. Supplementary readings
H. Conferences

VI. EVALUATION

A. Partial exams
B. Index cards
C. Short tests and assignments
D. Final exam

VII. EDUCATIONAL RESOURCES

Text

Audiovisual Resources

Identifying Neurological Deficit: (AV RC 348 .I 33 1989)
Guarding against tuberculosis in the health care environment: AV RA 644 .T 7 M 4318 1994
El músculo: AV QM 571 .M 85

VIII. REFERENCES


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Translated to English: Rebecca S. Fruge’, RN, PhD
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