Capital Area School of Practical Nursing
Nursing I Course Syllabus

Course Information
Time: 8:15 am-11:40 pm & 12:30-4:00 pm
Total Contact Hours: 203
Lab Contact Hours: 28
Theory Contact Hours: 175

Instructor(s) Information
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Classroom performance and student responsibilities
All policies are to be followed as outlined in the CASPN student handbook.

Assignments and Point Distribution
Assignments, tests, and point distribution per faculty.

Course Description
This course focuses on the care of adult patients with common medical/surgical health alterations as well as health promotion and illness/injury prevention. The student builds upon nursing concepts needed to deliver safe, individualized care of patients with alterations in selected body systems (care of the surgical patient; gastrointestinal and accessory organs; cardiovascular; respiratory; urinary; endocrine; immunology; oncology). Utilizing the nursing process, the student will explore the pathophysiology, pharmacology and nutritional needs of diverse patients. Skills lab allow students the opportunity to apply course concepts in caring for patients with selected medical/surgical conditions.

Course Objectives
1. Describe the steps of a focused health assessment on adult patients and identify deviations from normal.
2. Describe the role of the nurse as a member of the health care team and advocate while providing patient-centered care for adult patients.
3. Apply knowledge of pharmacology, pathophysiology, and nutrition, as well as evidence based practice, to the care of adult patients with common medical/surgical health alterations.
4. Describe how verbal and nonverbal communication promotes therapeutic relationships with adult patients and their families, as well as professional relationships with members of the health care team.
5. Define technologies and evidence-based literature that support clinical decision making and impact patient care.
6. Discuss health education needs of adult patients and their families, as well as strategies used to reinforce education.
7. Describe organizational, time management, and priority-setting skills used when providing care to adult patients.
8. Identify patient-care needs related to safety and the delivery of quality care.
9. Describe ethical and legal standards as well as professional accountability in the delivery of care to adult patients and their families.

Content Unit
ABGs and Acid-Base Balance

Unit Objectives
1. Recognize alterations in the laboratory values of arterial pH, CO_2, HCO_3, and O_2 indicative of respiratory and metabolic acidosis or alkalosis.
2. Differentiate between the clinical manifestations of respiratory and metabolic acidosis or alkalosis.
3. Apply knowledge of pathophysiology when planning care for patients with respiratory or metabolic acidosis or alkalosis.
4. Identify priority actions for patients with respiratory and metabolic acidosis or alkalosis.
5. Recognize the indications for administration of potassium supplements, Kayexalate, and sodium bicarbonate.

Content Unit
Alteration in Oxygenation

Unit Objectives
1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in oxygenation.
2. Apply knowledge of anatomy, physiology, pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in oxygenation.
3. Identify priority actions for adults who have an alteration in oxygenation.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in oxygenation.
5. Recognize alterations in pulse oximetry and other laboratory values related to alterations in oxygenation.
6. Discuss the correct use and functioning of therapeutic devices that support oxygenation.
7. Describe the role of the nurse in providing quality care to adults who have an alteration in oxygenation.
8. Identify health care education and safety needs for adults who have an alteration in oxygenation.

Content Topics
a. Pathophysiology/ Obstructive disorders (emphysema and chronic bronchitis, COPD)
b. Pathophysiology/ Trauma related disorders (pneumothorax, hemothorax)
c. Pathophysiology/ Abnormal cell proliferation disorders (laryngeal cancer, lung cancer)
d. Pharmacology/ Glucocorticoids (oral and inhaled)
e. Pharmacology/ Methylxanthines
f. Pharmacology/ Mast cell stabilizers
g. Pharmacology/ Anticholinergics (inhaled)
h. Pharmacology/ Leukotriene modifiers
i. Pharmacology/ Beta 2-adrenergic agonists
j. Nutrition/ Diet for patients with nutritional deficit (high calorie, high protein diet with limitation of empty liquids)
k. Nutrition/ Diets for patients with dyspnea (soft diet, small frequent meals)
l. Nutrition/ Nutritional supplements (high calorie, low carbohydrate)

Content Units
Alterations in Cardiac Output and Tissue Perfusion

Unit Objectives
1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in cardiac output and tissue perfusion.
2. Apply knowledge of anatomy, physiology, pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in cardiac output and tissue perfusion.

3. Identify priority actions for adults who have an alteration in cardiac output and tissue perfusion.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in cardiac output and tissue perfusion.
5. Recognize alterations in laboratory values related to alterations in cardiac output and tissue perfusion.
6. Discuss the correct use and functioning of therapeutic devices that support cardiac output and tissue perfusion.
7. Describe the role of the nurse in providing quality care to adults who have an alteration in cardiac output and tissue perfusion.
8. Identify health care education and safety needs for adults who have an alteration in cardiac output and tissue perfusion.

Content Topics

a. Pathophysiology/ Ischemic disorders (angina, myocardial infarction)
b. Pathophysiology/ Decreased cardiac output disorders (congestive heart failure, pulmonary edema)
c. Pathophysiology/ Electrical conduction disorders (arrhythmias, electronic pacing, cardioversion)
d. Pathophysiology/ Peripheral vascular disorders (peripheral vascular disease, peripheral arterial disease)
e. Pathophysiology/ Hematologic disorders /RBC and platelets(anemias, polycythemia, thrombocytopenia, DIC)
f. Pathophysiology/ Hematologic disorders/WBC and lymphatic (agranulocytosis, multiple myeloma, lymphedema, malignant lymphoma)
g. Pathophysiology/ Decreased arterial pressure disorders (postural hypotension, hypovolemic shock, septic shock)
h. Pharmacology/ Organic nitrates
i. Pharmacology/ Beta and alpha adrenergic blockers
j. Pharmacology/ Centrally acting alpha agents
k. Pharmacology/ Calcium channel blockers
l. Pharmacology/ Atropine
m. Pharmacology/ Antilipemics
n. Pharmacology/ Antiplatelets
o. Pharmacology/ Anticoagulants
p. Pharmacology/ Low-dose aspirin
q. Pharmacology/ Thrombolytics
r. Pharmacology/ Renin-angiotension-aldosterone system (RAAS) drugs
s. Pharmacology/ Iron, Vitamin B12, folic acid supplements
t. Nutrition/ Dietary Approaches to Stop Hypertension (DASH) diet
u. Nutrition/ Therapeutic Lifestyle Changes (TLC) diet
v. Nutrition/ Diets rich in iron, Vitamin B12, and folic acid

Content Unit

Alterations in Regulation and Metabolism

Unit Objectives

1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in regulation and metabolism.
2. Apply knowledge of anatomy, physiology, pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in regulation and metabolism.
3. Identify priority actions for adults who have an alteration in regulation and metabolism.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in regulation and metabolism.
5. Recognize alterations in laboratory values related to alterations in regulation and metabolism.
6. Discuss the correct use and functioning of therapeutic devices that support regulation and metabolism.

7. Describe the role of the nurse in providing quality care to adults who have an alteration in regulation and metabolism.
8. Identify health care education and safety needs for adults who have an alteration in regulation and metabolism.

Content Topics

a. Pathophysiology/ Endocrine/exocrine disorders (SIADH, diabetes insipidus, thyroid and parathyroid disorders)
b. Pathophysiology/ Adrenal disorders (Addison's disease, Cushing's disease)
c. Pharmacology/ Thyroid hormones
d. Pharmacology/ Thyrotropin-releasing hormone
e. Pharmacology/ Thyroid hormone synthesis inhibitor
f. Pharmacology/ Radioactive and nonradioactive iodine
g. Pharmacology/ Antidiuretic hormone preparation
h. Pharmacology/ Glucocorticoid and mineralcorticoid hormones
i. Nutrition/ Addison's diet (high caloric, high sodium, low potassium diet, small)

Content Unit

Alterations in Ingestion, Digestion, Absorption, and Elimination

Unit Objectives

1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in ingestion, digestion, absorption, and elimination.
2. Apply knowledge of anatomy, physiology, pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in ingestion, digestion, absorption, and elimination.
3. Identify priority actions for adults who have an alteration in ingestion, digestion, absorption, and elimination.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in ingestion, digestion, absorption, and elimination.
5. Recognize alterations in laboratory values related to alterations in ingestion, digestion, absorption, and elimination.
6. Discuss the correct use and functioning of therapeutic devices that support ingestion, digestion, absorption, and elimination.
7. Describe the role of the nurse in providing quality care to adults who have an alteration in ingestion, digestion, absorption, and elimination.
8. Identify health care education and safety needs for adults who have an alteration in ingestion, digestion, absorption, and elimination.

Content Topics

a. Pathophysiology/ Infectious and Inflammatory disorders (esophagitis, gastroesophageal reflux disease, gastroenteritis, peptic ulcer disease, Crohn's disease, ulcerative colitis, pancreatitis, cholecystitis, hepatitis, cirrhosis, appendicitis)
b. Pathophysiology/ Structural disorders (diverticulosis, intestinal obstructions, hemorrhoids)
c. Pathophysiology/ Abnormal cell proliferation disorders (esophageal cancer, colorectal cancer, liver cancer)
d. Pharmacology/ Antacids
e. Pharmacology/ H2 receptor antagonists
f. Pharmacology/ Proton pump inhibitors
g. Pharmacology/ Prostaglandin analogs
h. Pharmacology/ Mucosal barrier fortifiers
i. Pharmacology/ Sucralfate
j. Pharmacology/ IBS specific drugs

k. Pharmacology/ Antispasmodics
l. Pharmacology/ Antidiarrheals
m. Pharmacology/ Prokinetic agents
n. Pharmacology/ Hepatitis A, Hepatitis B Vaccinations
o. Nutrition/ Dietary measures to decrease esophageal reflux
p. Nutrition/ Low fiber, los lactose, high protein, high calorie diet
q. Nutrition/ Limited fat, high protein, high carbohydrate diet
r. Nutrition/ High carbohydrate and calories, moderate fat and protein diet

Content Unit
Alterations in Excretion

Unit Objectives
1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in excretion.
2. Apply knowledge of anatomy, physiology, pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in excretion.
3. Identify priority actions for adults who have an alteration in excretion.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in excretion.
5. Recognize alterations in laboratory values related to alterations in excretion.
6. Discuss the correct use and functioning of therapeutic devices that support excretion.
7. Describe the role of the nurse in providing quality care to adults who have an alteration in excretion.
8. Identify health care education and safety needs for adults who have an alteration in excretion.

Content Topics
a. Pathophysiology/ Infectious and inflammatory disorders (pyelonephritis, glomerulonephritis, acute and chronic renal failure)
b. Pathophysiology/ Renal calculi (kidney stones, urolithiasis)
c. Pathophysiology/ Abnormal cell proliferation (kidney cancer, bladder cancer)
d. Pharmacology/ Antibiotics (sulfonamides, trimethoprim)
e. Pharmacology/ Erythropoetic growth factors
f. Nutrition/ Low sodium, low potassium, low protein diet
g. Nutrition/ Low purine diet

Content Unit
Pre/Post-operative Care

Unit Objectives
1. Differentiate between the various phases of the surgical experience (pre, peri, and postoperative) and Identify the role of the nurse in each of these phases.
2. List the responsibilities of the nurse when caring for a patient in the immediate pre- and postoperative period.
3. Differentiate between general and regional anesthesia and conscious sedation.
4. Describe the impact drugs used during a surgical procedure can have on drugs given in the immediate postoperative period.
5. Compare and contrast medications commonly given for postoperative pain, nausea, and vomiting.
6. Discuss the legal and ethical issues related to ensuring informed consent.
7. Discuss potential post surgical and immobility complications and the nurses' role in preventing them (thromboemboli, pneumonia, atelectasis, wound infection, wound dehiscence and evisceration).
8. Intervene to provide a safe environment for the surgical patient.

Content Topics

a. Opioid agonists
b. Agonists-antagonists opioids
c. Opioid antagonists
a. Serotonin antagonists
b. Dopamine antagonists
c. Anticholinergics
d. Antihistamines

Content Unit

Oncology

Unit Objectives

1. Differentiate between the characteristics of normal cells and cancer cells.
2. Discuss cancer cells' ability to proliferate and metastasize to surrounding tissue and distant sites.
3. Compare and contrast various grading and staging systems.
4. Review the basic principles of chemotherapy, immunotherapy, hormonal, and radiation therapy.
5. Explore the nursing challenges when assisting patients and their families as they deal with end of life issues.
6. Review genetic and environmental factors that increase an individual's risk for cancer.
7. Describe primary and secondary cancer prevention activities that can aid patients in the prevention and early detection of cancer.
8. Compare and Contrast medications commonly given for postoperative nausea and vomiting:

Content Topics

a. Serotonin antagonists
b. Dopamine antagonists

Content Unit

Nursing Care

Unit Objectives

1. Review principles related to the selected skills.
2. Practice patient care skills using proper techniques while ensuring patient safety.

Content Topics

a. Theory/Lab/ Oxygenation and airway (oxygen therapy, oxygen delivery systems, tracheostomy suctioning and care, spirometry, ventilator monitoring, chest tube monitoring and documentation).
b. Theory/Lab/ Wound care (Sterile dressing changes, specialized wound dressings, suture and staple removal, emergency care of evisceration and documentation)
c. Theory/Lab/ IV Maintenance (types of access devices, administration tubing, continuous, bolus and intermittent infusions, assessment for infiltration and phlebitis, determining and maintaining patency, and documentation).
d. Theory/Lab/ Drug calculation (intermediate/advanced)
e. Theory/Lab/ Complications of immobility (sequential compression devices, pressure relief mattresses/beds and documentation).
f. Theory/Lab/ Elimination (continuous bladder irrigation, sterile catheter irrigation and specimen collection, colostomy care and documentation).
g. Theory/Lab/ EKG (lead placement, reading normal strips, reading paced strips and documentation).
h. Theory/Lab/ Joint replacement care (CPM machine, hip precautions and documentation)
i. Theory/Lab/ Pre- and postoperative care (NPO status, postoperative diets, vital sign monitoring, safety measures for patient with altered LOC and documentation).

Content Unit:
Emergency Preparedness

Unit Objectives

1. Discuss issues related to an internal threat, natural disaster, or a mass casualty situation.
2. Review prepared security plans and chain of responsibility for emergency situations.
3. Relate the importance of knowing the location and purpose of the MSDS Manual.
4. Describe the RACE acronym and its use as a guide for action during a fire.
5. Define the term triage and its related steps.
6. Determine priorities when evacuating clients from a client care setting.

NOTE

This syllabus is not a contract between the instructor and student enrolled. Content is subject to change. Students will be given notice of changes made in content, policies, or grading as they may occur.