

**STATE UNIVERSITY OF NEW YORK  
COLLEGE OF TECHNOLOGY  
CANTON, NEW YORK**



**COURSE OUTLINE LPNC 103 – PN Medical-Surgical Nursing**

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**SCHOOL OF SCIENCE, HEALTH, AND CRIMINAL JUSTICE  
Nursing Department  
May 2016  
Revised January 2022 by Christine Brassard**

- A. **TITLE:** PN Medical-Surgical Nursing
- B. **COURSE NUMBER:** LPNC 103
- C. **CREDIT HOURS:** 8
- D. **WRITING INTENSIVE COURSE:** No
- E. **COURSE LENGTH:** 15 weeks
- F. **SEMESTER(S) OFFERED:** Spring
- G. **HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY:** 3 hours of lecture, 3 hours of lab and 12 hours of clinical per week  
**1 credit= 50 minutes of lecture or 3 hours lab or 3 hours of clinical per week**
- H. **CATALOG DESCRIPTION:** Students will utilize critical thinking and the nursing process in learning about fundamental disease processes and the LPN's role in prevention of illness, treatment of disease, and the restoration of health in the adult client. Concepts related to safety, emotional support, communication, client teaching, and pharmacology are integrated throughout the course. Students utilize the nursing laboratory to enhance their psychomotor and critical thinking skills in practicing advanced nursing skills. Clinical experiences provide opportunities for students to apply theory/lab in the medical- surgical units and specialty units of acute care hospitals and clinics.
- I. **PRE-REQUISITES/CO-REQUISITES:**  
**Pre-requisite:**
- LPNC 100: Drug Dosage Calculation & Pharmacology
  - LPNC 101 PN Fundamentals
  - BIOL 217 Anatomy and Physiology I
  - ENGL 101 Composition and the Spoken Word
- Pre/co-requisite:**
- LPNC 102 Practical Nursing- Special Populations
  - BIOL 218: Anatomy and Physiology II
  - PSYC 101 Introduction to Psychology

**J. GOALS (STUDENT LEARNING OUTCOMES):**

By the end of this course, the student will be able to:

Course Student Learning Outcomes (SLO)	Program SLO
Demonstrate client-centered nursing care interventions and provisions of care to clients experiencing altered health status.	Demonstrate appropriate care to clients with stable and predictable conditions.  Demonstrate accountability for legal, ethical and regulatory parameters within the scope of practice of the practical nurse.
Demonstrate evidence-based nursing interventions and skills generated through the knowledge of the nursing process.	Demonstrate, proper technique with nursing skills, use of client care equipment and technology in a cost effective manner.  Collect data and health histories for individuals using standardized tools in an organized pattern, thereby contributing to nursing care plan.
Discuss patient-centered care, safety and quality improvement needs associated with common diseases related to each body system and how these systems interact with one another.	Understand client disorders and nursing care utilizing current evidence based practice.  Demonstrate developmentally appropriate, respectful and effective therapeutic communication skills.
Understand nursing responsibilities related to diagnostic tests, medication administration, diet therapy, quality improvement and nursing informatics.	Identify clinical scenarios and situations that fall outside of the PN scope of practice.  Observe, reflect, and participate in self-performance and peer-to-peer teaching.

**K. TEXTS:**

Author	Title	Publisher
Williams, L., & Hopper, P. (2019)	Understanding Medical-Surgical Nursing, (6 <sup>th</sup> edition)	F. A. Davis
Hooper, P. & Williams, L. (2019)	Study Guide for Understanding Medical-Surgical Nursing, (6 <sup>th</sup> edition)	F. A. Davis
ATI Essential Basic Package		Assessment Technologies Institute, LLC
Williams, D., et. al. (2020).	PN Adult Medical-Surgical Nursing (PN edition 11.0)	Assessment Technology Institute, LLC
Vallerand, A. & Sanoski, C. (2021)	Davis's Drug Guide for Nurses (17 <sup>th</sup> edition)	F. A. Davis
Van Leeuwen, A. & Bladh, M. (2019)	Davis's Comprehensive Manual of Laboratory and Diagnostic Tests with Nursing Implications, (8 <sup>th</sup> edition)	F. A. Davis

**L. REFERENCES:** None

**M. EQUIPMENT:**

- Clear plastic ID holder
- SUNY Canton Student Identification
- Navy blue scrub pants, white nursing scrub top, and nursing program uniform patch (goes on right shoulder, available at Campus Store)
- White, crew neck, short-sleeve T-shirt (to wear under the scrub top if needed), white socks, and clean sneakers/nursing shoes
- Pen light, blood pressure cuff, and stethoscope
- Folder for clinical papers

**N. GRADING METHOD:**

- A = 90 – 100%
- B+ = 85 - 89%
- B = 80 – 84%
- C+ = 75 – 79%
- C = 70 – 74%
- D+ = 65 – 69%
- D = 60 – 64%
- F = 59% and below

**A grade of C+ or better** is required for successful completion of all nursing courses and a grade of C or better is required for all co-requisite courses to continue on in the program.

**O. MEASUREMENT CRITERIA/METHODS:**

Activity	Purpose	Percentage of Grade
Formative Exams (6 Exams at 10% each)	To guide the level of knowledge necessary for the student to be able to make the judgments and decisions required by the program's SLOs.	60%

	To help students identify their strengths and weaknesses and target areas that need work To help faculty recognize where students are struggling and address problems immediately.	
Homework Assignments/Quizzes	To help students identify their strengths and weaknesses and target areas that need work.	5%
Standardized Testing (ATI)	To help students identify their strengths and weaknesses and target areas that need work.  To evaluate student learning at the end of the course by comparing the students' learning to the ATI national benchmark.  To mimic the NCLEX-PN exam.	10%
Comprehensive Final Exam	To evaluate students' accomplishment of the course SLOs at the end of the semester.	25%
Lab Skills Proficiency	To demonstrate skill in client rapport, nursing skills and assessment techniques.	P/F
Clinical Evaluation	To demonstrate critical thinking abilities, safety, teamwork and collaboration, informatics, evidence-based practice, quality improvement, patient-centered care and professionalism.	P/F
<b>TOTAL</b>		<b>100%</b>

**P. DETAILED COURSE OUTLINE:**

1. Introduction to medical-surgical nursing
2. Pain management - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Define pain and identify factors that influence patient's response to pain
  - b. List data to collect
  - c. Discuss interventions used in the management of pain
3. Cancer – nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Differentiate between benign and malignant tumors
  - b. Risk factors for developing cancer
  - c. Seven warning signs for cancer
  - d. Prevention and detection of cancer
  - e. Pathophysiology of cancer

- f. Process of metastasis
  - g. Terms used in tumor classification
  - h. Nursing responsibilities in the care of a client with cancer- during diagnosing and treatment
  - i. Common pharmacological agents used in cancer treatment
4. Inflammation and infection - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
- a. Signs and symptoms of localized and systemic infection
  - b. Types of shock- includes causes
  - c. Diagnostic tests used in identifying causative agents of infection
  - d. Nursing responsibilities in the care of a client with inflammation and infection
  - e. Common pharmacological agents used in treating infection
5. Surgery - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
- a. Care of a client undergoing surgery
    - i. Preoperative
    - ii. Intraoperative
    - iii. Postoperative
6. Fluid and Electrolytes and Acid-Base Balance - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
- a. Factors affecting fluid balance
  - b. Fluid imbalances- identify, list causes, treatments
  - c. Nursing measures to maintain fluid balance
  - d. Buffer systems of the body in acid-base balance
  - e. Respiratory and metabolic imbalances
  - f. Electrolyte imbalances
7. Integumentary System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
- a. Pathophysiology overview of skin
  - b. Diagnostic tests
  - c. Disease processes, medical treatment, and nursing care
  - d. Skin infections
    - i. Bacterial
    - ii. Viral
    - iii. Fungal
    - iv. Parasitic
  - e. Chronic skin conditions
    - i. Burns
    - ii. Skin cancer
  - f. Surgical procedures
    - i. Skin grafts
    - ii. Liposuction

8. Musculoskeletal System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Pathophysiology of the musculoskeletal system
  - b. Diagnostic tests
  - c. Disease processes, medical treatment, and nursing care
    - i. Bone disorders
    - ii. Fractures
    - iii. Osteoporosis
    - iv. Osteomalacia
  - d. Bone cancer
  - e. Inflammatory disorders
  - f. Rheumatoid arthritis
  - g. Degenerative joint disease
  - h. Gout
  - i. Ankylosing spondylitis
  - j. Lyme disease
  - k. Spinal disorders
  - l. Kyphosis/lordosis
  - m. Scoliosis
  - n. Low back pain
  - o. Joint and muscle disorders
  - p. Strains
  - q. Sprains
  - r. Osteoarthritis
9. Autoimmune and miscellaneous disorders
  - a. Systemic lupus erythematosus
  - b. Fibromyalgia
10. Respiratory System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Pathophysiology of the respiratory system
  - b. Diagnostic tests
  - c. Disease processes, medical treatments, and nursing care
  - d. Upper respiratory disorders
  - e. Infections and inflammations
  - f. Trauma and obstruction
  - g. Tumors
  - h. Lower respiratory disorders
  - i. Pulmonary embolism
  - j. Pulmonary hypertension
  - k. Chest trauma
  - l. Inhalation injuries
  - m. Near-drowning
11. Cardiovascular System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Improvement, safety, medication administration, and nursing informatics.
  - b. Pathophysiology of the heart and circulatory system
  - c. Diagnostic tests

- d. Disease process, medical treatments, and nursing care
- e. Heart disorders
  - i. Coronary artery disease
  - ii. Angina
  - iii. Myocardial infarction
- f. Heart/Lung disorders
  - i. Congestive heart failure
  - ii. Pulmonary edema
- g. Other heart disorders
  - i. Valvular heart disease
  - ii. Inflammatory heart disorders
  - iii. Pericarditis
  - iv. Myocarditis
  - v. Endocarditis
  - vi. Cardiomyopathy
  - vii. Conduction disorders
  - viii. Central circulatory disorders
  - ix. Hypertension
  - x. Aneurysms
  - xi. Emboli
- 12. Peripheral vascular disorders
  - a. Arterial
    - i. Arteriosclerosis obliterans
    - ii. Beurger's disease
    - iii. Raynaud's disease
  - b. Venous
    - i. Thrombophlebitis
    - ii. Varicose veins
    - iii. Venous stasis ulcers
- 13. Hematopoietic/Lymphatic System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Pathophysiology of the hematopoietic/lymphatic system
  - b. Diagnostic tests
  - c. Disease processes, medical treatments, and nursing care
- 14. Red blood cell disorders
  - a. Anemia
  - b. Polycythemia
  - c. Platelet and coagulation disorders
  - d. Hemostasis
  - e. Thrombocytopenia
  - f. Disseminated intravascular coagulation
  - g. Hemophilia
- 15. White blood cell disorders
  - a. Agranulocytosis



- b. Leukemia
  - c. Multiple myeloma
  - d. Lymphatic system
  - e. Lymphangitis
  - f. Lymphedema
  - g. Infectious mononucleosis
  - h. Malignant lymphoma
16. Neurosensory System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
- a. Pathophysiology of the neurosensory system
  - b. Diagnostic tests
  - c. Disease processes, medical treatments, and nursing care
  - d. Cerebrovascular disorders
  - e. Transient ischemic attacks
  - f. Cerebrovascular accident
  - g. Cerebral aneurysm
  - h. Seizure disorders
  - i. Infections
    - i. Meningitis
    - ii. Encephalitis
  - j. Brain abscess
  - k. West Nile virus
  - l. Trauma
    - i. Brain injury
    - ii. Hematoma
    - iii. Increased intracranial pressure
    - iv. Spinal cord injury
  - m. Tumors
  - n. Brain
  - o. Spinal cord
  - p. Degenerative neurologic disorders
    - i. Parkinson's disease
    - ii. Multiple sclerosis
    - iii. Amyotrophic lateral sclerosis
    - iv. Alzheimer's disease
    - v. Myasthenia gravis
    - vi. Guillain-Barre syndrome
    - vii. Huntington's disease
    - viii. Neurofibromatosis
  - q. Cranial nerve disorders
    - i. Bell's palsy
    - ii. Trigeminal neuralgia
    - iii. Tourette's syndrome
    - iv. Meniere's disease
    - v. Peripheral neuropathy
  - r. Visual and Auditory disorders

- i. Eye and ear infections
  - ii. Hearing loss
  - iii. Glaucoma
  - iv. Cataracts
  - v. Macular degeneration
  - vi. Eye and ear trauma
- 17. Gastrointestinal - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Pathophysiology of the GI system
  - b. Diagnostic tests
  - c. Disease processes, medical treatments, and nursing care
  - d. Upper GI disorders
    - i. Oral cavity
    - ii. Dental caries
    - iii. Oral infections
    - iv. Oral cancer
    - v. Esophageal disorders
    - vi. Esophagitis
    - vii. Gastroesophageal reflux disease
    - viii. Hiatal hernia
    - ix. Esophageal cancer
    - x. Stomach disorders
    - xi. Acute gastritis
    - xii. Chronic gastritis
    - xiii. Peptic ulcer disease
    - xiv. Pyloric obstruction
    - xv. Gastric cancer
  - e. Lower GI disorders
    - i. Elimination disorders
    - ii. Flatulence
    - iii. Constipation
    - iv. Impaction
    - v. Diarrhea
    - vi. Incontinence
  - f. GI Disorders
    - i. Infectious/Inflammatory disorders
    - ii. Enteritis
    - iii. Appendicitis
    - iv. Crohn's disease
    - v. Ulcerative colitis
    - vi. Irritable bowel syndrome
    - vii. Abdominal hernias/intestinal obstructions
    - viii. Diverticulosis/diverticulitis
    - ix. Colorectal cancer
    - x. Anorectal disorders
    - xi. Hemorrhoids

- xii. Anal fissure
    - xiii. Pilonidal cyst
    - xiv. Anorectal abscess
  - g. Accessory organ disorders
    - i. Cholecystitis/cholelithiasis
    - ii. Hepatitis
    - iii. Cirrhosis of the liver
    - iv. Liver cancer
    - v. Pancreatitis
    - vi. Pancreatic cancer
  - h. Endocrine System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
    - i. Pathophysiology of the endocrine system
    - ii. Diagnostic tests
    - iii. Disease processes, medical treatments, and nursing care
  - i. Pituitary disorders
    - i. Anterior
    - ii. Posterior
  - j. Thyroid disorders
    - i. Hyperthyroidism
    - ii. Hypothyroidism
    - iii. Thyroid cancer
  - k. Parathyroid disorders
    - i. Hyperparathyroidism
    - ii. Hypoparathyroidism
  - l. Diabetes mellitus
  - m. Adrenal gland disorders
  - n. Addison's disease
  - o. Cushing's disease
  - p. Pheochromocytoma
- 18. Genitourinary/Reproductive System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Pathophysiology of genitourinary systems and male/female reproductive systems
  - b. Diagnostic tests
  - c. Disease processes, medical treatments, and nursing care
  - d. Kidney disorders
    - i. Pyelonephritis
    - ii. Polycystic kidney disease
    - iii. Glomerulonephritis
    - iv. Urinary obstruction
    - v. Renal failure
    - vi. Renal cancer
  - e. Bladder disorders
    - i. Bladder cancer

- ii. Urinary retention
    - iii. Cystitis
  - f. Ureter and urethral disorders
  - g. Male reproductive disorders
    - i. Prostate disorders
    - ii. Prostatitis
    - iii. Prostate cancer
  - h. Female reproductive disorders
    - i. Disorders related to the menstrual cycle
    - ii. Bleeding disorders
    - iii. Premenstrual syndrome
    - iv. Tumors and abnormal growth
    - v. Fibroid tumors
    - vi. Malignant disorders
    - vii. Endometriosis
    - viii. Infections
    - ix. Toxic shock syndrome
    - x. Pelvic inflammatory disease
  - i. Disorders of the breast
  - j. Benign disorders
  - k. Malignant disorders
  - l. Menopause
  - m. Sexually transmitted diseases
    - i. Chlamydia
    - ii. Gonorrhea
    - iii. Syphilis
    - iv. Herpes
    - v. Human papilloma virus
    - vi. Trichomoniasis
    - vii. Candidiasis
- 19. Immune System - nursing interventions, multidisciplinary care, quality improvement, safety, medication administration, and nursing informatics.
  - a. Pathophysiology of the immune system
  - b. Diagnostic tests
  - c. Disease processes, medical treatments, and nursing care
  - d. Human immunodeficiency virus
  - e. Acquired immune deficiency syndrome
  - f. Emergency
  - g. Shock
    - i. Pathophysiology of various types of shock
    - ii. Diagnostic tests
    - iii. Disease processes, medical treatments, and nursing care
    - iv. Hypovolemic
      - v. Cardiogenic
      - vi. Anaphylactic
      - vii.** Septic

*viii.* Neurogenic

**Q. LABORATORY OUTLINE:**

1. Inserting and removing NG tubes
2. Administering a tube feeding
3. IV catheter insertion
4. Intravenous medication administration
5. Monitoring clients receiving IV therapy
6. Finger-stick glucose testing
7. Insulin administration
8. Wound Care
9. Tracheostomy care
10. Chest tubes
11. Blood Transfusion