

**MINNESOTA WEST COMMUNITY AND TECHNICAL COLLEGE  
COURSE OUTLINE**

**DEPARTMENT:** Nursing

**COURSE NUMBER:** PRNU2295

**COURSE TITLE:** IV Skills For Practical Nurses

**CATALOG DESCRIPTION:** This course is designed to enhance the knowledge of established IV nursing standards of practice and to qualify the licensed practical nurse to initiate and administer IV therapy to adults and adolescents. Information and hands-on practice for the safe insertion, care and maintenance of a peripheral IV catheter will be provided. Administration of IV therapy via a peripheral site will also be discussed.

**AUDIENCE:** Practical nursing students and practicing LPNs desiring the training provided in this class.

**FULFILLS MN TRANSFER CURRICULUM AREA(S):** does not apply

**PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:** has completed or is nearing completion of the Practical Nursing program or is a practicing LPN

**LENGTH OF COURSE:** 15 hours (1 credit)

**THIS COURSE IS USUALLY OFFERED:**

Every Other year ☐ Fall ☐ Spring ☐ Summer ☒ undetermined ☐

**Four goals are emphasized in courses at Minnesota West Community and Technical College:**

1. **ACADEMIC CONTENT:** The student will develop a broad-based understanding of basic aspects of IV therapy and the skills related to it.
2. **THINKING SKILLS:** The student will implement critical thinking skills, applying the theory behind IV therapy to the practice.
3. **COMMUNICATIONS SKILLS:** The student will demonstrate appropriate communication techniques, including patient education, when simulating IV skills with other students in the lab.

4. **HUMAN DIVERSITY:** The student will appreciate individual differences and special circumstances they may find in patients requiring IV therapy.  
(ex: differences in geriatric patients)

## **TOPICS TO BE COVERED/LIST OF EXPECTED COURSE OUTCOMES:**

### **Unit I. LEGALITIES**

1. Understand the role of the licensed practical nurse as compared to that of the registered nurse in the performance of IV therapy.
2. Discuss nursing ethics and patient rights as applied to intravenous therapy.

### **Unit II. PATIENT EDUCATION PRINCIPLES**

1. Identify the essential elements when educating patients regarding the initiation and administration of intravenous therapy.

### **Unit III. FLUID AND ELECTROLYTES**

1. Explain hydration and normal fluid balance.
2. Describe regulatory factors that maintain fluid balance.
3. Identify selected disturbances in regulatory factors that maintain fluid balance.
4. State nursing responsibilities and interventions with regard to regulatory factors in fluid balance.
5. Identify correct definitions of terms associated with dehydration and fluid overload.
6. State nursing responsibilities and interventions with regard to possible dehydration.

### **Unit IV. ANATOMY AND PHYSIOLOGY**

1. Discuss the physiology of the cardiopulmonary system distinguishing between pathophysiological conditions and normal conditions.
2. Describe physiology, anatomy and circulation of the venous system.
3. Describe pathophysiological conditions of the venous system.

4. Identify the skin layers.
5. Trace the flow of blood through the heart.

#### **Unit V. EQUIPMENT USED IN INTRAVENOUS THERAPY**

1. Distinguish among characteristics of:
  - a. IV solution containers.
  - b. IV tubings (macro-micro drip).
  - c. secondary ports.
  - d. vented/non-vented tubing.
  - e. clamps/terminal filtering devices.
  - f. IV needles/catheters.
  - g. electronic controlling devices.

#### **Unit VI. IV THERAPY**

1. State nursing interventions with regard to splints/restraints.
2. Calculate flow rates.
3. State instructions about IV therapy to be given to the patient.
4. State nursing interventions with regard to initiation, monitoring and discontinuation of the peripheral IV system.
5. Distinguish among factors necessary for appropriate documentation of the initiation, maintenance and ongoing monitoring of IV therapy.
6. Identify specific considerations related to the administration of IV therapy via peripheral lines.
7. Demonstrate the ability to:
  - a. perform daily care for peripheral IV site and tubing.
  - b. replace IV tubing.
  - c. discontinue peripheral IV.
  - d. remove air from tubing via various methods.
  - e. perform venipuncture for the purpose of initiating IV therapy.

#### **Unit VII. SPECIAL APPLICATIONS**

1. Describe the process of inflammation and its effect on the body.

2. Describe principles of infection control in relationship to IV fluid therapy initiation and administration.
3. Identify specific considerations for the initiation and administration of IV fluids to the geriatric patient.

### **Unit VIII. POTENTIAL INTRAVENOUS THERAPY COMPLICATIONS**

1. Perform proper nursing interventions related to management of the IV complications including:
  - a. hematoma.
  - b. thrombus formation.
  - c. infiltration.
  - d. phlebitis.
  - e. emboli.
  - f. fluid overload.
  - g. speed shock.
2. Distinguish between specific considerations related to local and systemic IV therapy reactions.
3. Demonstrate the ability to:
  - a. confirm placement and patency of ONC, wing-tipped, heparin lock needle.
  - b. establish prescribed flow rates.

### **Unit IX. PHARMACOLOGY**

1. Identify the purpose of intravenous drug therapy.
2. Discuss the five "rights" of medication administration.
3. List essential elements the nurse must obtain prior to IV medication administration.
4. Identify medical information to be obtained in a nursing history.
5. Distinguish among methods of administering IV medications and their appropriate guidelines.
6. State nursing responsibilities and interventions with regard to the administration of IV medications.
7. Discuss considerations and interventions with relationship to IV drug compatibilities.

8. Use reference sources to determine incompatibilities and appropriate nursing actions for IV administration of drugs.
9. Demonstrate the ability to:
  - a. schedule the administration of drugs.
  - b. administer medications using the
    1. piggyback method.
    2. continuous infusion method.
    3. heparin lock flush method

**LEARNING/TEACHING TECHNIQUES used in the course are:**

☒ Collaborative Learning

☐ Student Presentations

☐ Creative Projects

☒ Lecture

☒ Problem solving

☒ Interactive Lectures

☒ Individual Coaching

☒ Films/Videos/Slides

☒ Demonstrations

☒ Lab

**ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:**

☒ Reading

☒ Test

☐ Individual Projects

☐ Oral presentations

☐ Worksheets

☐ Collaborative Projects

☐ Textbook Problems

☐ Papers

☐ Portfolio

☐ Group problems

☐ Term Paper

☒ Other (describe below): Performance testing of IV skills in the lab

**STUDENTS NEEDING ACCOMMODATIONS FOR A DISABILITY MUST NOTIFY THE INSTRUCTOR.**

This document can be made available in alternative format, allowing ample time for adaptations, to individuals with disabilities by calling Diane Graber at 1-800-657-3966. For TTY Communications call the Minnesota Relay service at 1-800-627-3529. An Affirmative Action Equal Opportunity Educator/Employer. ADA Compliant.

This information in this course outline is subject to revision.