

Lassen Community College Course Outline

VN 59 Intravenous Therapy and Blood Withdrawal

2.0 Units

I. Catalog Description

Designed for the Licensed Vocational Nurse student currently enrolled in the Licensed Vocational Nursing program to prepare for IV and Blood Withdrawal Certification through the Board of Vocational Nursing and Psychiatric Technicians. Students will demonstrate competency to the satisfaction of the BVNPT that they are properly trained and prepared to withdraw blood from a patient and start and superimpose intravenous fluids. Upon successful completion the student will be prepared to withdraw blood and start and superimpose intravenous fluids in an organized healthcare system. The student must complete 30 theory hours and 9 clinical hours and perform a minimum of 3 individually supervised successful venipunctures and 3 individually supervised skin punctures by each student on live human subjects. Access to a computer with internet access is required. Students must complete all course hours and must achieve a 75% on their final class grade and must achieve a final exam grade of 75% or better to be eligible-for certification. Lab and certification fee of \$100 will be collected at registration. This course has been approved for hybrid delivery and online delivery for emergency use only. If course is provided hybrid or online, per the board of nursing students must be displayed on camera throughout entire course.

Diversity Statement:

Our commitment to diversity requires that we strive to eliminate barriers to equity and that we act deliberately to create a safe and inclusive environment where individual and group differences are valued and leveraged for the growth and understanding as an educational community.

Prerequisite(s): Successful completion of all vocational nursing courses or current LVN license in the state of California.

Does not transfer to UC/CSU

31 Hours Lecture, 62 Expected Outside Class Hours, 9 Hours Lab, 102 Total Student Learning Hours.

II. Coding Information

Repeatability: Not Repeatable, Take 1 Time

Grading Option: Graded

Credit Type: Credit - Degree Applicable

TOP Code: 120510

III. Course Objectives

A. Course Student Learning Outcomes

Upon completion of this course the student will be able to:

1. Perform venipunctures, initiate and maintain IV therapy in accordance with the LVN scope of practice.
2. Accurately document venipuncture and the start of IV therapy in accordance with current legal requirements, current nursing practice act, and standard of care within the LVN scope of practice.
3. Perform blood withdrawal within LVN scope of practice.

B. Course Objectives

Upon completion of this course the student will be able to:

1. Discuss blood withdrawal
 - a) Describe physical and psychological preparation of patient
 - b) Perform universal precautions for infection control
 - c) Discuss methods of blood withdrawal
 - i. Venipuncture
 - ii. Skin puncture
 - iii. Arterial puncture
 - d) Select appropriate method for withdrawal
 - e) Perform preparation of withdrawal site
 - f) Provide safety measures
 - g) Identify equipment and supplies
 - h) Perform venipuncture
 - i) Perform skin puncture
 - j) Identify possible complications
2. Discuss peripheral intravenous therapy
 - a) Describe physical and psychological preparation of patient
 - b) Perform universal precautions for infection control
 - c) Describe indications for intravenous therapy
 - i. Discuss maintenance of fluid and electrolytes
 - ii. Discuss replacement of fluid and electrolyte loss
 - d) Discuss infusion of intravenous medications and the Licensed Vocational Nurses scope of practice
 - e) Identify intravenous solutions
 - i. Isotonic
 - ii. Hypotonic
 - iii. Hypertonic
 - f) Identify types of intravenous delivery systems
 - g) Identify intravenous equipment
 - i. Intravenous needle cannula
 - ii. Winged butterfly
 - iii. Intravenous tubing
 - iv. Intravenous infusion pump and controllers
 - v. Intravenous start kit
 - h) Describe asepsis and intravenous therapy
 - i. Perform handwashing
 - ii. Perform gloving
 - iii. Gather supplies
 - iv. Cleanse patient skin
 - i) Calculate infusion rates and regulate fluid flow
 - j) Initiate peripheral venipuncture
 - i. Perform medical records review
 - ii. Prepare equipment
 - iii. Select appropriate vein
 - iv. Perform final preparation of supplies
 - v. Cleanse appropriate site
 - vi. Preparation and immobilization of site
 - vii. Perform venipuncture and cannulation
 - viii. Secure intravenous site

- ix. Start intravenous pump
 - x. Set gravity infusion rate
 - xi. Observe patient and monitor intravenous infusion
 - xii. Document the venipuncture
 - xiii. Display problem solving abilities
 - xiv. Discontinue and intravenous infusion
 - xv. Remove intravenous line.
- k) Discuss complication of peripheral IV therapy
 - i. Identify local and systemic reactions
 - ii. Identify infiltration
 - iii. Identify extravasation
 - iv. Identify phlebitis and thrombophlebitis
 - v. Identify localized infection
 - vi. Identify septicemia
 - vii. Identify severed cannula
 - viii. Monitor for air Embolism
 - ix. Monitor for circulatory fluid overload and pulmonary edema
 - x. Identify shock
 - l) Describe blood and blood products administration
 - i. Identify steps of transfusion

IV. Course Content

1. Discuss blood withdrawal
2. Physical and psychological preparation of patient
3. Universal precautions for infection control
4. Methods of blood withdrawal
5. Method for withdrawal
6. Preparation of withdrawal site
7. Safety measures
8. Equipment and supplies
9. Venipuncture
10. Complications of phlebotomy
11. Skin puncture
12. Complications
13. Peripheral intravenous therapy
 - a) Physical and psychological preparation of patient
 - b) Universal precautions for infection control
 - c) Indications for intravenous therapy
 - d) Infusion of intravenous medications and the Licensed Vocational Nurses scope of practice
 - e) Intravenous solutions
 - f) Types of intravenous delivery systems
 - g) Intravenous equipment
 - h) Asepsis and intravenous therapy
 - i) Infusion rates and regulate fluid flow
 - j) Peripheral venipuncture initiation
 - k) Complication of peripheral IV therapy
 - l) Blood and blood products administration

V. Assignments

A. Appropriate Readings

Representative texts as assigned by instructor. California regulations governing intravenous therapy.

B. Writing Assignments

Documentation

C. Expected Outside Assignments

Daily reading assignments in the texts and journals

D. Specific Assignments that Demonstrate Critical Thinking

Performance of direct and indirect venipunctures. Assess fluids and electrolyte balance. Demonstrate complete procedure of blood or blood product administration. Analyze lab reports. Interpret physician’s orders.

VI. Methods of Evaluation

The student must maintain a 75% in the class and must pass any midterm or final exams with a 75% or better to continue on in the nursing Program.

Traditional Classroom Instruction

Term paper (topic choice, thesis statement, outline, bibliography, rough draft, final draft), homework, classroom discussion, essay, journals, lab demonstrations and activities, multiple choice quizzes, and participation.

Hybrid Evaluation

All quizzes and exams will be administered during the in person class time. Students will be expected to complete online assignments and activities equivalent to in class assignments and activities for the online portion of the course. Electronic communication, both synchronous and asynchronous (chat/forum) will be evaluated for participation and to maintain effective communication between instructor and students.

Online Evaluation

A variety of methods will be used, such as: research papers, asynchronous and synchronous (chat/forum) discussions, online quizzes and exams, posting to online website and email communications using the districts approved learning management system.

VII. Methods of Delivery

Check those delivery methods for which, this course has been separately approved by the Curriculum/Academic Standards Committee.

Traditional Classroom Delivery Correspondence Delivery

Hybrid Delivery Online Delivery

Traditional Classroom Instruction

Lecture, PowerPoint, and other media presentations, discussions, scenarios, and group presentations.

Hybrid Delivery for Courses with a Lab

Hybrid modality may involve face to face instruction mixed with online instruction. A minimum of 1/3 of instruction, including 100% labs, will be provided face to face. The remaining hours will be taught online through a technology platform as adopted by the district.

Online Delivery

A variety of methods will be used, such as: research papers, asynchronous and synchronous (chat/forum) discussions, online quizzes and exams, posting to online website and email communications using the districts approved learning management system.

This course is approved by the Board of Vocational Nursing and Psychiatric Technicians for delivery to 15 students per state approve instructor.

VIII. Representative Texts and Supplies

ALL previously required program resources may be used in this course.

IX. Discipline/s Assignment

Licensed Vocational Nursing, Nursing

X. Course Status

Current Status: Active

Original Approval Date: 11/20/1990

Revised By: Christi Myers

Curriculum/Academic Standards Committee Revision Date: 11/29/2022