Cerro Coso College

Course Outline of Record Report

10/11/2021

HCRSC075 : Principles of Intravenous Therapy and Blood Withdrawal

General Information

Author:	-
Course Code (CB01) :	HCRSC075
Course Title (CB02) :	Principles of Intravenous Therapy and Blood Withdrawal
Department:	Allied Health
Proposal Start:	Fall 2013
TOP Code (CB03) :	(1230.20) Licensed Vocational Nursing
SAM Code (CB09) :	Advanced Occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000510289
Curriculum Committee Approval Date:	03/09/2014
Board of Trustees Approval Date:	06/12/2014
External Review Approval Date:	07/24/2014
Course Description:	The course is designed to enable the Licensed Vocational Nurse (LVN) to safely initiate and maintain intravenous therapy in a clinical setting. LVNs successfully completing this course will be certified by the California Board of Vocational Nurse Examiners to initiate and superimpose intravenous fluids. Must have a current California Vocational Nursing License or senior standing in a LVN Program, or Interim Permittee Vocational Nurse status.
Submission Type:	New Course
Author:	No value

Faculty Minimum Qualifications

Master Discipline Preferred:	• Nursing Science/ Clinical Practice
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	No value
Additional Bachelors or Associates Discipline Preferred:	No value

Course Development Options

Basic Skills Status (CB08)

Course is not a basic skills course.

☐ Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Allowed Number of Retakes

0

Grade Options

- Pass/No Pass

Course Prior To College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☐ Allow Students To Audit Course

Course Support Course Status (CB26)

No value

Associated Programs

☐ Course is part of a program (CB24)

Associated Program

No value

Award Type

No value

Active

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

No value

Transferability

Not transferable

Transferability Status

Not transferable

Units and Hours

Summary

Minimum Credit Units (CB07)	0
Maximum Credit Units (CB06)	0
Total Course In-Class (Contact) Hours	0
Total Course Out-of-Class Hours	0
Total Student Learning Hours	0
Faculty Load	0

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Non-Credit Characteristic

No Value

Course Classification Status (CB11)

Credit Course.

Variable Credit Course

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	0	0
Laboratory Hours	0	0
Activity Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	0
Activity	0
Total	0
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
Activity	0
Total	0

Time Commitment Notes for Students

No value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Units and Hours: Non-standard

Summary

Minimum Credit Units (CB07)	2
Maximum Credit Units (CB06)	2
Total Course In-Class (Contact) Hours	36
Total Course Out-of-Class Hours	54
Total Student Learning Hours	90

Faculty Load 0

Detail

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	27	54
Laboratory Hours	0	0
Activity Hours	9	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	27
Laboratory	0
Activity	9
Total	36
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
Activity	0
Total	54

Time Commitment Notes for Students

No Value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours: Non-standard - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

No Value

Entrance Skills

Entrance Skills	Description
No value	No value

Limitations on Enrollment

Limitations on Enrollment	Description
BVNPT	Required by Statute: BVNPT: Current California Vocational Nursing License (LVN), or senior standing in a LVN Program, or Interim VN Permittee status. Students must have a current California Vocational Nursing License (LVN), or senior standing in a LVN Program, or Interim VN Permittee status as mandated by the Board of Vocational Nursing and Psychiatric Technicians .

Specifications

Methods of Instruction

Methods of Instruction	Audiovisual
Rationale	No value
Methods of Instruction	Skills Development and Performance
Rationale	Procedure presentation andClinical experience
Methods of Instruction	Skills Development and Performance
Rationale	No value
Methods of Instruction	Performance
Rationale	No value
Methods of Instruction	Peer-to-peer instruction
Rationale	No value
Methods of Instruction	Lecture

Rationale	No value

Methods of Instruction	Instruction through examination or quizzing
Rationale	No value

Methods of Instruction	Audiovisual
Rationale	No value

Methods of Instruction	Case Study
Rationale	No value

Methods of Instruction	Discussion
Rationale	No value

Assignments

A. Textbook Reading
B. Written exercise on a case study related to phlebotomy, intravenous therapy, and venipunctures. Example: Discuss the case scenario. Include errors the nurse made, complications the patient suffered, and preventative steps that could have prevented the problem.
C. Practice: On a partner/family member find veins that might be used for venipuncture, phlebotomy, or intravenous access.

Methods of Evaluation	Rationale
Tests	No value
Other	Demonstration of intravenous cannulation, phlebotomy, and venipuncture.

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
	Sharon M Weinstein, S.; Hagle, M.E.. (2014) Plumerâ€™s Principles and Practice of Intravenous Therapy , 9th, Lippincott Williams & Wilkins			

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Discuss the function and structure of veins including identifying the names and locations of the veins most suitable for phlebotomy, intravenous cannulation, and venipuncture. Expected SLO Performance: 70.0

Discuss the correct use of and assemble the appropriate equipment and supplies needed to collect blood and insert an intravenous cannula. Expected SLO Performance: 70.0

Demonstrate the steps in performing blood collection, intravenous cannulation, and venipuncture procedure. Expected SLO Performance: 70.0

Assess techniques and equipment used to minimize biohazards exposure in both blood collections, intravenous cannulation, and venipuncture. Expected SLO Performance: 70.0

Evaluate procedural errors and discuss possible remedies for blood collection, intravenous cannulation, and venipuncture. Expected SLO Performance: 70.0

Differentiate complications and their effect on the quality of laboratory test results associated with blood collection, intravenous cannulation, and venipuncture. Expected SLO Performance: 70.0

Identify the components and the safe administration of total parenteral fluids. Expected SLO Performance: 70.0

Identify types of blood transfusion reactions and nursing actions if a reaction occurs Expected SLO Performance: 70.0

Perform a minimum of three successful venipunctures and three successful skin punctures on clients. Expected SLO Performance: 70.0

Outline

Course Outline

I. The role the nurse in intravenous (IV) therapy and Blood Withdrawal Licensed Vocational NurseRegistered Nurse
II. Factors that affect flow rates of IV solutions
III. Proper use of specific equipment IV therapyArterial punctureBlood withdrawal
IV. IV therapy; Blood withdrawal; Arterial puncture; Nursing precautions; and Client safety Preparing the client psychologicallyRationale for blood withdrawal; arterial punctures and venipuncturesTypes of skin puncture; venipuncture and arterial devices and their appropriate usesSkin puncture; arterial puncture; and venipunctureTypes of intravenous solutions and their appropriatenessPreparing equipment properly and aseptic allySelecting and correctly preparing the most appropriate vein for venipuncture; blood withdrawal or arterial puncturePreparing site in a manner which reduces the chance of infectionPerforming venipuncture utilizing direct or indirect methodPerforming blood withdrawal utilizing skin puncture (vacutainer;

butterfly; syringe); arterial puncture or venipunctureDressing site according to policySecuring and immobilizing device appropriately/safelyRegulating flow rate of fluid accuratelyDocumenting on medical record
V. Complications Blood withdrawalArterial puncturesVenipuncture
VI. Local and systemic reactions related to intravenous therapy
VII. Nursing measures taken to reduce local and systemic reactions
VIII. Five reasons to discontinue and restart IV devices
IX. Causes of clinical symptomsHypovolemiaHypervolemia
X. Causes and differentiate clinical symptoms of electrolyte imbalance
XI. The role of IV therapy in pH imbalance
XII. Causes of pH imbalances
XIII. Specified intravenous solutions ActionsDosagesSide effectsNursing implications
XIV. IV fluid container label and names of commonly ordered solutions
XV. Usual components of total parenteral nutrition
XVI. Nursing precautions relating to total parenteral nutrition
XVII. Safety techniques utilized in blood transfusions
XVIII. Types of blood transfusion reactions
XIX. Nursing actions taken when blood transfusion reaction occurs
XX. Differences between techniques Adult IV therapyPediatric IV therapy
XXI. Situations related to intravenous therapy with legal implications
XXII. Ways of minimizing legal risks IV therapyBlood Withdrawal practice
XXIII. Safety precautions Administering intravenous fluidsWithdrawing bloodTesting for adequate circulation pertaining to arterial puncture site

Lab Outline

I. Perform a minimum of three (3) individually supervised successful venipunctures on clients
II. Perform a minimum of three (3) individually supervised successful skin punctures on clients
III. Proper use of specific equipment IV therapyArterial punctureBlood withdrawal
IV. Intervenous therapy; Blood withdrawal; Arterial puncture; Nursing precautions; and Client safety Preparing the client psychologicallyRationale for blood withdrawal; arterial punctures and venipuncturesTypes of skin puncture; venipuncture and arterial devices and their appropriate usesTypes of intravenous solutions and their appropriatenessPreparing equipment properly and aseptICallySelecting and correctly preparing the most appropriate vein for venipuncture; blood withdrawal or arterial puncturePreparing site in a manner which reduces the chance of infectionPerforming venipuncture utilizing direct or indirect methodPerforming blood withdrawal utilizing skin puncture (vacutainer; butterfly; syringe); arterial puncture or venipunctureDressing site according to policySecuring and immobilizing device appropriately/safelyRegulating flow rate of fluid accuratelyDocumenting on medical record.

Delivery Methods and Distance Education

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings (“Hybrid”) -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

Face 2 Face

Rigor Statement: Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section?

No Value

Effective Student-Instructor Contact: Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course. -Learning Management System -Discussion Forums -Moodle Message -Other Contact -Chat/Instant Messaging -E-mail -Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV -Interactive Video -Other (specify)

Software and Equipment: What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

No Value

Accessibility: Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

No Value

Class Size: Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

No Value