

# HEOC-90: INTRAVENOUS THERAPY

---

## Effective Term

Fall 2025

## CC Approval

03/07/2025

## AS Approval

03/13/2025

## BOT Approval

03/20/2025

## COCI Approval

05/22/2025

## SECTION A - Course Data Elements

### CB04 Credit Status

Credit - Degree Applicable

### Discipline

Minimum Qualifications	And/Or
Health Care Ancillaries (Any Degree and Professional Experience)	

### Subject Code

HEOC - Health Occupations

### Course Number

90

### Department

Health Occupations (HEOC)

### Division

Health Occupations (HEOC)

### Full Course Title

Intravenous Therapy

### Short Title

Intravenous Therapy

### CB03 TOP Code

1260.00 - Health Professions, Transfer Core Curriculum

### CB08 Basic Skills Status

NBS - Not Basic Skills

### CB09 SAM Code

C - Clearly Occupational

### Rationale

Updating course number.

## SECTION B - Course Description

### Catalog Course Description

This course is designed to prepare students to administer intravenous fluids using the fundamental principles and competencies required to begin, maintain, and discontinue intravenous therapy. Letter grade only.

## SECTION C - Conditions on Enrollment

### Open Entry/Open Exit

No

### Repeatability

Not Repeatable

### Grading Options

Letter Grade Only

### Allow Audit

Yes

## Requisites

### Corequisite(s)

Concurrent enrollment in NURS-233 or NURS-153 and NURS-154 or current California LVN or RN license.

## Requisite Justification

### Requisite Description

Course Not in a Sequence

### Subject

NURS

### Course #

233

### Level of Scrutiny

Content Review

### Upon entering this course, students should be able to:

- Anatomy and Physiology of the Cardiovascular and Peripheral Vascular Body Systems
- Normal Fluid Volumes and Homeostasis
- General/purpose of parenteral therapy

---

### Requisite Description

Course Not in a Sequence

### Subject

NURS

### Course #

153

### Level of Scrutiny

Content Review

### Upon entering this course, students should be able to:

- Anatomy and Physiology of the Cardiovascular and Peripheral Vascular Body Systems
- Normal Fluid Volumes and Homeostasis
- General/purpose of parenteral therapy

---

### Requisite Description

Course Not in a Sequence

### Subject

NURS

**Course #**

154

**Level of Scrutiny**

Content Review

**Upon entering this course, students should be able to:**

- Anatomy and Physiology of the Cardiovascular and Peripheral Vascular Body Systems
- Normal Fluid Volumes and Homeostasis
- General/purpose of parenteral therapy

**Requisite Description**

Non-course Requisite

**Level of Scrutiny**

Content Review

**Upon entering this course, students should be able to:**

- Anatomy and Physiology of the Cardiovascular and Peripheral Vascular Body Systems
- Normal Fluid Volumes and Homeostasis
- General/purpose of parenteral therapy

**SECTION D - Course Standards****Is this course variable unit?**

No

**Units**

1.50

**Lecture Hours**

24.00

**Lab Hours**

8.00

**Outside of Class Hours**

48

**Total Contact Hours**

32

**Total Student Hours**

80

**Distance Education Approval****Is this course offered through Distance Education?**

Yes

**Online Delivery Methods**

DE Modalities	Permanent or Emergency Only?
Hybrid	Emergency Only

## SECTION E - Course Content

### Student Learning Outcomes

**Upon satisfactory completion of the course, students will be able to:**

1. Demonstrate understanding of fundamental principles of safely starting, maintaining, and discontinuing intravenous therapy.

### Course Objectives

**Upon satisfactory completion of the course, students will be able to:**

1. Demonstrate understanding and knowledge of the venipuncture procedure and intravenous therapy as evidenced by the successful completion of the written objectives for each session.
2. Demonstrate competency in starting, maintaining, and discontinuing IV therapy as evidenced by three individually supervised successful IV starts on live subjects with demonstrated ability to maintain and discontinue IV therapy utilizing appropriate aseptic technique.

### Course Content

1. Define the terms "intravenous fluids" and "superimpose" as stated under article 8 of the Vocational Nursing Practice Act.
2. Identify two documents that govern the practice of individual LVN's regarding IV therapy.
3. Understand clearly that LVN's do not give IV meds under any circumstances.
4. Identify five factors to be considered in selecting appropriate sites for IV catheter placement.
5. Identify why the lower extremities are not routinely used for IV therapy.
6. Define "electrolytes" and give four examples.
7. Identify five signs and symptoms that could indicate fluid/electrolyte imbalance.
8. Identify three clinical situations where you would suspect a patient may be at risk for fluid/electrolyte imbalance.
9. Name four methods of transport across the semi-permeable cell membrane.
10. List five indications for IV therapy.
11. Identify the differences between isotonic, hypotonic and hypertonic solutions and give two examples each.
12. Name three ways to identify veins vs. arteries.
13. Identify three reasons why you might use a butterfly versus an angiocath when starting an IV.
14. Identify three benefits to using the angiocath.
15. Identify two reasons you would use an IV pump.
16. Identify two situations where you would use a microdrip tubing vs. macrodrip. Why?
17. Describe infection control guidelines pertaining to IV therapy/venipuncture.
18. Know your workplace policy regarding IV site care and who may do what with central lines.
19. Describe the potential clinical findings that could be observed when caring for a patient receiving IV therapy.
20. List five nursing responsibilities related to the care of the IV system.
21. Under direct supervision by an instructor, demonstrate appropriate technique for:
  - a. choosing a venipuncture site,
  - b. cleansing the skin,
  - c. choosing an appropriate IV device,
  - d. utilizing a tourniquet,
  - e. inserting the IV device,
  - f. securing the IV device,
  - g. attaching IV tubing/peripheral lock and
  - h. dressing the site.
22. Identify the three most frequently used anatomical sites used for venipuncture in the infant.
23. Describe the preparation and approach to the pediatric client and parent(s) used prior to venipuncture.
24. Describe two considerations to be evaluated prior to starting an IV on the geriatric patient.
25. Identify three patient populations that may be anticoagulated. How might this affect the venipuncture procedure?
26. Identify three important nursing considerations to remember when administering IV solutions that contain KCl.
27. Demonstrate the ability to accurately calculate IV drip rates given a set of hypothetical clinical scenarios.
28. Under direct supervision of an RN instructor, demonstrate on live subjects the correct procedure for:
  - a. venipuncture with an angiocath,
  - b. dressing an IV site,
  - c. flushing a peripheral lock,
  - d. hanging IV fluid as ordered and calculating drip rates, and
  - e. discontinuing IV therapy and angiocath.

29. Identify the signs, symptoms and usual treatment of four local complications of venipuncture and IV therapy.
30. Identify the signs, symptoms and usual treatment of four systemic complications of venipuncture and IV therapy.
31. Identify two measures that can be employed to prevent local and/or systemic complications.
32. Discuss the differences between TPN and PPN.
33. Identify three reasons for the use of parenteral nutrition.
34. Explain why parenteral nutrition poses a high risk for infection.
35. Identify four potential symptoms of transfusion reaction.
36. Identify five “rules” to follow for safe blood administration.

## Methods of Instruction

### Methods of Instruction

Types	Examples of learning activities
Discussion	
Lab	
Lecture	
Other	Methods employed to teach the fundamentals of venipuncture and IV therapy will include lecture, participative discussion, visual aids, written materials and review, as well as clinical laboratory experience using practice, actual equipment/supplies and live subjects.

### Instructor-Initiated Online Contact Types

Announcements/Bulletin Boards  
 E-mail Communication  
 Telephone Conversations  
 Video or Teleconferencing

### Student-Initiated Online Contact Types

Discussions

### Course design is accessible

Yes

## Methods of Evaluation

### Methods of Evaluation

Types	Examples of classroom assessments
Exams/Tests	
Lab Activities	

## Assignments

### Writing Assignments

Weekly reading and written assignments related to lecture/skills.

## SECTION F - Textbooks and Instructional Materials

### Material Type

Other required materials/supplies

### Description

Instructor generated course outline and course pack specific to intravenous therapy.

## Course Codes (Admin Only)

### ASSIST Update

No

**CB00 State ID**

CCC000535807

**CB10 Cooperative Work Experience Status**

N - Is Not Part of a Cooperative Work Experience Education Program

**CB11 Course Classification Status**

Y - Credit Course

**CB13 Special Class Status**

N - The Course is Not an Approved Special Class

**CB23 Funding Agency Category**

Y - Not Applicable (Funding Not Used)

**CB24 Program Course Status**

Program Applicable

**Allow Pass/No Pass**

No

**Only Pass/No Pass**

No