

# ALH 0008 - MEDICATION ADMINISTRATION AND INJECTION PROCEDURES

## Catalog Description

Prerequisite: Completion of ALH 1, 2, 3, and 4 with grades of "C" or better  
Hours: 90 (36 lecture, 54 laboratory)

Description: Students will acquire and apply knowledge of various routes of medication administration and the related injection safety, techniques, and site selection. Medication dosage calculations, medication side effects and emergencies pertaining to medication administration will prepare students to practice within the scope of practice of a medical assistant. (letter grade only) (not transferable)

## Course Student Learning Outcomes

- CSLO #1: Interpret and execute medication administration according to physician orders.
- CSLO #2: Perform calculation of dosages for various medication administration modalities.
- CSLO #3: Apply various medication administration techniques.

## Effective Term

Fall 2018

## Course Type

Credit - Degree-applicable

## Contact Hours

90

## Outside of Class Hours

72

## Total Student Learning Hours

162

## Course Objectives

Lecture Objectives:

1. Outline pharmacology and medication administration theory.
2. Outline the importance of proper dosage calculations for various administration modalities.
3. Apply the appropriate medication administration technique.
4. Discuss and apply what constitutes a medication reaction or emergency.

Lab Objectives:

1. Interpret and execute medication orders demonstrating good communication with physician(s) and patient(s).
2. Demonstrate proficiency in proper dosage calculations and the associated routes of administration.
3. Demonstrate proficiency in medication administration technique.
4. Explain medication overdose, drug interactions, potential side effects or adverse effects.

## General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

## Articulation Information

- Not Transferable

## Methods of Evaluation

- Classroom Discussions
  - Example: After completion of dose calculations, students will be required to post a response to discussion board via LMS and reply to at least one student question. Standard Grading. Example question: (Scenario) Katie has just turned three and weighs 30 lbs. Her mother wants to know how much cough syrup to give adults two teaspoons every four hours. (Students would then calculate the dosage based on Clark's rule or Young's rule and post their response.) Standard Grading.
- Objective Examinations
  - Example: Students will take multiple choice examination on injection methods. Standard Grading. Example Question: Which of the following injection methods should be chosen for medications that are irritating or may cause discoloration of the skin? a. Subcutaneous b. Intravenous c. Z-track d. Intradermal e. Intramuscular Answer: c. Z-track
- Skill Demonstrations
  - Example: After instructor demonstrates the proper method of injection, students will be expected to read the medication order, decide if they are required to calculate the medication dosage (and demonstrate), draw up the medication and administer by the route instructed in the lab setting for skills checkoff. Standard Grading.

## Repeatable

No

## Methods of Instruction

- Laboratory
- Lecture/Discussion
- Distance Learning

Lab:

1. Following lecture and discussion, instructor will demonstrate how to interpret and execute physician orders with various examples presented. Students will then do exercises in lab with final checkoff of skills by instructor.
2. Following lecture and discussion, instructor will demonstrate various dosage calculations and administrative modalities. The students will then apply this to complete dosage calculation worksheets and practice exercises in the lab setting with checkoff of skills by instructor.

Lecture:

1. Instructor PowerPoint presentation on Interpretation and execution of medication administration orders as given by the physician. This will be followed by discussion on scope of work for Medical Assistants.

#### Distance Learning

1. Online instructor PowerPoint presentation on dosage calculations and administration modalities. This will be followed by an online discussion on why a particular method is chosen.

## Typical Out of Class Assignments

### Reading Assignments

1. Read section from textbook on medication side effects and adverse reactions. Be prepared to discuss the difference between a side effect and an adverse effect. 2. Read section from textbook on infectious disease exposure. Be prepared to discuss both prevention and management.

### Writing, Problem Solving or Performance

1. Answer critical thinking exercises for section in the textbook on methods of administering medications. Example: List the “seven rights” of drug administration. 2. Answer critical thinking exercises for section in the textbook on medication administration, modalities, dosages, law and addiction. Example question: Explain why Clark’s rule and Young’s rule are used for pediatric dosages.

### Other (Term projects, research papers, portfolios, etc.)

1. Write short research paper utilizing online resources on general lab safety and OSHA regulations.

### Required Materials

- The Clinical Medical Assistant
  - Author: Garrels, Marti
  - Publisher: Elsevier Saunders
  - Publication Date: 2017
  - Text Edition: 13th
  - Classic Textbook?:
  - OER Link:
  - OER:

### Other materials and-or supplies required of students that contribute to the cost of the course.