



Intravenous Admixture and Sterile Compounding

(PHRA 1345)

Credit: 3 semester credit hours (3 hours lecture and lab)

Prerequisite: Complete the TSI Assessment Tests with 343/Mathematics, 347/Reading, and 357/4/Writing. PHRA 1301,1205,1215,1313

Course Description

A study of sterile products, legal and regulatory guidelines, hand washing techniques, pharmaceutical calculations, references, safety techniques, aseptic techniques in parenteral compounding, proper use of equipment, preparation of sterile products, and safe handling of antineoplastic drugs.

Required Textbook and Materials

1. Sterile Compounding and Aseptic Technique: Concepts, Training, and Assessment for Pharmacy Technician- Text AND Student Resources DVD (Optional).
Author: Lisa McCartney
ISBN 978-0-76384-083-9
2. Any other materials required will be discussed by the Instructor throughout the course.

Course Objectives

- Employ the methods for learning that are best suited to individual learning needs.
- Identify the ethical and legal obligations of sterile compounding personnel, including training and assessment requirements, and the procedures for avoiding and reporting medication errors.
- Describe the pharmacy environment appropriate for sterile compounding as defined by USP Chapter <797>.
- Identify supply items used in sterile compounding, and describe appropriate technique to maintain the sterility of their critical sites.
- Translate pharmacy and medical terminology, abbreviations, and symbols that are used on the medication orders and CSP labels utilized in sterile compounding.
- Perform the calculations required for dosage determination and solution preparation.

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Course Syllabus

- Demonstrate aseptic technique in garbing, hand washing, and hood cleaning utilizing technique defined in USP Chapter <797>.
- Perform sterile compounding procedures to prepare various vial-based or ampule-based large-volume and small-volume parenteral preparations.
- Prepare specialty admixtures such as narcotic preparations and pediatric CSPs.
- Display appropriate technique in the compounding of a TPN preparation.
- Identify the procedures for handling hazardous materials such as chemotherapy CSPs.
- Exhibit excellent aseptic technique during process validation and assessment of the sterile compounding procedures presented in the textbook.

Course Outline

Unit I: Exploring the Basics of Sterile Compounding

Chapter 1 Sterile Compounding as a Pharmacy Technician

Chapter 2 The Sterile Compounding Environment

Chapter 3 Sterile Compounding Supplies

Chapter 4 Medication Orders and Labeling

Chapter 5 Calculations for Sterile Compounding

Unit II: Compounding Sterile Preparations

Chapter 6 Aseptic Garbing, Hand Washing, and Gloving

Chapter 7 Cleaning the Horizontal Laminar Airflow Hood

Chapter 8 Large-Volume Parenteral Preparations

Chapter 9 Small-Volume Parenteral Preparations

Chapter 13 Total Parenteral Preparation

Chapter 14 Chemotherapy Products and Procedure

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Course Syllabus

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

1. Final Exam 35%
2. Exams 20%
3. Homework 20%
4. Quizzes 10%
5. Lab Work 15%

Technical Requirements (for courses using Blackboard)

The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at:

https://help.blackboard.com/en-us/Learn/9.1_2014_04/Student/015_Browser_Support/015_Browser_Support_Policy

A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of the online technology and resources.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Student Code of Conduct Statement

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu or obtained in print upon request at the Student Services Office. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.