

CPhT Practicum Syllabus Outline

Christina Lucke-Kloss – Lake Dallas High School

2025 Fall Semester

Dear Parents and Guardians,

Welcome to Certified Pharmacy Technician Practicum at Lake Dallas High School! This syllabus outlines the course plan for your child's class this semester, including key topics, expectations, and how you can support their success. As required by Texas law (Senate Bill 12), this document serves as the instructional plan and is available for your review. I look forward to working with you and your child!

Contact Information

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Course Overview (Instructional Plan)

This semester, your child will study the following topics in CPhT Practicum based on domains established by the CPhT national board, the Pharmacy Technician Certification Board (PTCB)

1. **CW 101: Introduction to Pharmacy**

- Learning objectives: 101.1 History of Pharmacy/Domains 1-4: Students will understand the evolution of the modern pharmacy
- Learning objectives: 101.2 Pharmacy Law, Ethics and Regulatory Agencies/Domains 1.1-1.5, 2.1-2.3, 2.5: Students will understand the purpose of the State Board of Pharmacy and other regulatory agencies.
- Learning Objectives 101.3 Competencies, Associations and Settings for Technicians/Domains 1-4: Students will identify CPhT responsibilities, workplace, settings, and understand the importance of professional organizations.

- Activities: Lectures, drug lists, quizzes, research, and tests.

2. CW 102 Customer Care and Drug Information

- Learning objectives: 102.1 Communication & the Role of the Technician/Domains 1.1-1.5, 3.2, 4.2: Students describe the communication skills necessary to provide direct patient care in a pharmacy setting.
- Learning Objectives: 102.2: Dosage forms & routes of administration? Domain 1.1-1.5, 3.2, 4.2: Students will recognize classifications of meds as they relate to body systems; identify dosage formulations; routes of administration; explain absorption, distribution, metabolism, elimination, bioavailability of drugs in the body; define first-pass and half-life and know importance.
- Learning Objectives: 102.3 Information References/Domain 1.1-1.5, 3.2, 4.2: Students will demonstrate appropriate ways to research drugs and other information from reference books, journals, and electronic sources. Explain the importance of sources as they pertain to pharmacy & continuing education.
- Activities: Lectures, drug lists, scenarios, research, quizzes, tests

3. CW 103 Pharmacy Math I

- Learning objectives: 103.1 Measurement of Numbers, Time & Temperature/Domains 2.2-4, 3.2, 4.2, 4.4: Student practices conversions between the different systems
- Learning objective: 103.2 Comparisons of Measurement Systems/Domains 2.2-4, 3.2, 4.2, 4.4: Students will identify, convert, calculate using the household, metric, and apothecary systems.
- Learning Objective: 103.3 Conversions among measurement systems/Domains 2.2-4, 3.2, 4.2, 4.4: Students will convert metric, household, and apothecary systems using ratio/proportion and dimensional analysis
- Learning Objective 103.4 Interpretation of Medication Orders & Labels/Domains 2.2-4, 3.2, 4.2, 4.4: Students will describe prescription components; interpret medication orders & interpret labels found on medication containers.
- Learning Objective 103.5 Calculate dosage of oral & parenteral liquid medications/Domains 2.2-4, 3.2, 4.2, 4.4: Students will interpret medical orders & calculate oral parenteral medications using standards/ and dimensional analysis methods; determine correct reconstitution diluent/volume.
- Learning Objective 103.6 Restitution of Crystal & Powder into Liquid Medication/Domain 2.2-4, 3.2, 4.2, 4.4: Students will interpret medical orders & calculate oral parenteral medications using standards/ and dimensional analysis methods; determine correct reconstitution diluent/volume.
- Learning Objective 103.7 Calculation of Medications for Special Populations/Domains 2.2-4, 3.2, 4.2, 4.4: Students will calculate doses of medications for children & adults using weight, body mass, Clark's rule, Fried's rule, Young's rule.
- Activities: Lectures, drug lists, pharmacy math practice, labs relating to pharmacy math, quizzes, tests

4. CW 104 Pharmacology I

- Learning Objective: 104.1 Therapeutic Agents of the Nervous System/Domains 1.1-1.5, 3.2, 4.2
- 1.1-1.10, 4.3, 4.4, 4.5: Students will describe the major components of the nervous system; list the primary symptoms of conditions associated with dysfunction of the CNS/PNS as well as

their clinical features; recognize medications used to treat conditions associated with the nervous system; write generic/brand names of medications discussed in this section; list appropriate labels when filling prescriptions for these medications.

- Learning Objective: 104.2 Therapeutic Agents of the Endocrine System/Domains 1.1-1.10, 4.3, 4.4, 4.5: Students will describe the major components of the endocrine system; list the primary symptoms of conditions associated with dysfunction of the endocrine as well as their clinical features; recognize medications used to treat conditions associated with the endocrine system; write generic/brand names of medications discussed in this section; list appropriate labels when filling prescriptions for these medications.
- Learning Objective: 104.3 Therapeutic Agents for the Musculoskeletal System/Domains 1.1-1.10, 4.3, 4.4, 4.5: Students will describe the major components of the musculoskeletal system; list the primary symptoms of conditions associated with dysfunction of the musculoskeletal system as well as their clinical features; recognize medications used to treat conditions associated with the musculoskeletal system; write generic/brand names of medications discussed in this section; list appropriate labels when filling prescriptions for these medications.
- Learning Objective 104.4 Therapeutic Agents of the Cardiovascular System/Domains 1.1-1.10, 4.3-4.5. Students will describe the major components of the Cardiovascular system; list the primary symptoms of conditions associated with this system; recognize prescription and OTC meds used to treat these conditions; write generic/brand name associated medications; list appropriate auxiliary labels when filling prescriptions for medications discussed.
- Learning Objective 104.5 Therapeutic Agents of the Respiratory System/Domains 1.1-1.10, 4.3-4.5. Students will describe the major components of the Respiratory system; list the primary symptoms of conditions associated with this system; recognize prescription and OTC meds used to treat these conditions; write generic/brand name associated medications; list appropriate auxiliary labels when filling prescriptions for medications discussed.
- Learning Objective 104.6 Therapeutic Agents of the Gastrointestinal System/Domains 1.1-1.10, 4.3-4.5. Students will describe the major components of the GI system; list the primary symptoms of conditions associated with this system; recognize prescription and OTC meds used to treat these conditions; write generic/brand name associated medications; list appropriate auxiliary labels when filling prescriptions for medications discussed.
- Activities: lectures, system related drug lists & quizzes, labs, tests

5. CW 105 Pharmacy Math II

- Learning Objective 105.1 Calculations Intravenous Medications/Domains 1, 3.6, 4.2, 4.3, 4.4, 4.5: Students will interpret orders of medications as intravenous (IV) fluids; calculate dosages of (IV) solutes in IV fluids; calculate IV flow rates in drops per minute (gtt/min); calculate time needed to infuse an ordered volume of IV fluids.
- Learning Objective 105.2 Calculations of Mixtures Using Stock Medications/Domains 1, 3.6, 4.2, 4.3, 4.4, 4.5: Students will interpret labels for the weight/volume of solute in solvent; dilute stock medications to the required strength; calculate the weight/volume of an active ingredient in a substance; using allegation, calculate the weight of stock medications needed to prepare a desired compound.
- Learning Objective 105.3 Interpreting Physician's Orders for Dosages/Domain 1, 3.6, 4.2, 4.3, 4.4, 4.5: Students will calculate total dosage of medications when quantity is unknown; calculate number of doses of medication from total presented on prescription; calculate the number of

doses in a prescription if medication is taken according to physician's orders; read and interpret prescriptions to calculate dosages.

- Activities: Lectures, math practice and math related pharmacy lab, drug lists & quizzes, tests

6. CW 106 Pharmacology II

- Learning Objective Therapeutic Agents for the Renal System/Domains .1-1-10, 3.6, 4.3, 4.4: Students will Describe the major components of the renal & urological systems; list the primary symptoms of conditions associated with the dysfunction of these systems; recognize prescription & OTC meds used in the treatment of these conditions; write the brand/generic names for the meds listed; list appropriate auxiliary labels when filling prescriptions for med discussed in the treatment of these conditions.
- Learning Objective Therapeutic Agents for the Reproductive System/Domains 1-1-10, 3.6, 4.3, 4.4: Students will Describe the major components of the reproductive systems; list the primary symptoms of conditions associated with the dysfunction of these systems; recognize prescription & OTC meds used in the treatment of these conditions; write the brand/generic names for the meds listed; list appropriate auxiliary labels when filling prescriptions for med discussed in the treatment of these conditions.
- Learning Objective Therapeutic Agents for the Immune System/Domains 1.1-1-10, 3.6, 4.3, 4.4: Students will Describe the major components of the immune systems; list the primary symptoms of conditions associated with the dysfunction of these systems; recognize prescription & OTC meds used in the treatment of these conditions; write the brand/generic names for the meds listed; list appropriate auxiliary labels when filling prescriptions for med discussed in the treatment of these conditions.
- Learning Object Therapeutic Agents for the E.E.N.T. System/Domains 1.1-1.10, 3.6, 4.3, 4.4: Students will Describe the major components of the E.E.N.T. systems; list the primary symptoms of conditions associated with the dysfunction of these systems; recognize prescription & OTC meds used in the treatment of these conditions; write the brand/generic names for the meds listed; list appropriate auxiliary labels when filling prescriptions for med discussed in the treatment of these conditions.
- Activities: lectures, system related drug lists & quizzes, labs, tests

7. CW 107 Community Practice and Compounding

- Learning Objective Community Pharmacy Practice/Domain 2.2, 2.4, 2.5, 3.2-3.5, 4.1-4.5
- Students will describe the different types of community pharmacies & the tech's role in the medication process; identify laws related to prescription orders; obtain information to complete a prescription order; create a new patient profile; identify situations for screening of refills and renewals in which the tech should notify the pharmacist; demonstrate respectful attitude toward diverse groups of people; recognize effective interpersonal and teamwork skills in working with healthcare teams.
- Learning Objective Bulk Repackaging and Sterile Processing/Domain 2.2, 2.4, 2.5, 3.2-3.5, 4.1-4.5: Students will explain the need for packaging products in appropriate type and size containers; list steps in bulk repackaging; list reasons why pharmacies repack bulk meds into unit dose packages; describe proper handling of medications during repackaging; explain

the importance of accurate labeling of pharmaceuticals; calculate beyond-use dates when repackaging; list reasons for using unit dose medications.

- Learning Objective 107.3 Pharmacy Billing & Inventory Management/Domain 2.2, 2.4, 2.5, 3.2-3.5, 4.1-4.5: Students will discuss the importance of pharmacy billing & inventory management to the pharmacy practice; explain the function of the drug formulary in insurance plans; describe the role of the technician in the drug utilization evaluation; discuss how drug formulary lists affects pharmacy billing and inventory; list primary types of private and group insurance & describe how each type manages drug coverage; differentiate b/t Medicare, Medicaid, and Medigap programs; list the four parts of Medicare coverage; describe TRICARE, CHAMPVA, worker's compensation coverage.
- Activities: Lectures, drug lists, scenarios, research, quizzes, tests

8. CW 108 Pharmacology III

- Learning Objective Therapeutic Agents of the Dermatologic System/Domain Domains 1.1-1.10, 3.6, 4.3, 4.4: Students will Describe the major components of the Dermatologic system; list the primary symptoms of conditions associated with the dysfunction of these systems; recognize prescription & OTC meds used in the treatment of these conditions; write the brand/generic names for the meds listed; list appropriate auxiliary labels when filling prescriptions for med discussed in the treatment of these conditions.
- Learning Objective Therapeutic Agents of the Hematologic System/Domain 1.1-1.10, 3.6, 4.3, 4.4: Students will Describe the major components of the Hematologic system; list the primary symptoms of conditions associated with the dysfunction of these systems; recognize prescription & OTC meds used in the treatment of these conditions; write the brand/generic names for the meds listed; list appropriate auxiliary labels when filling prescriptions for med discussed in the treatment of these conditions.
- Activities: lectures, system related drug lists & quizzes, labs, tests

Thank you for supporting your child's education! Feel free to contact me with questions.

Sincerely,
Christina Kloss