

Pharmacy Technician

Pharmacy Technician is a one credit course that prepares students for the Pharmacy Technician Certification exam and a pharmaceutical career. The course covers content related to medicine, federal requirements, patient safety, quality assurance, and order processing. Foundations of Health Science is a prerequisite course.

Career and technical student organizations are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Students will:

Career Opportunities

1. List and compare the roles and careers available in various settings, including the hospital and retail pharmacy.
2. Describe the Pharmacy Technician's role in Medication Therapy Management (MTM)

Patient Safety and Quality Assurance

3. Recognize high alert/risk medications and look-alike/sound-alike (LASA) medications.
4. Differentiate between the following: side effects and adverse reactions, contraindications and drug interactions.
5. Demonstrate error prevention strategies, to include but not limited to:
 - a. prescription or medication order to correct patient
 - b. Tall Man lettering
 - c. Separating inventory
 - d. Leading and trailing zeros
 - e. Bar code usage
 - f. Limiting the use of error-prone abbreviations
6. List the benefits of compliance aids and devices (i.e., timers, personal automatic dispensing devices, lockboxes).
7. Recognize issues that require pharmacist intervention, to include but not limited to:
 - a. Drug utilization review (DUR)
 - b. Adverse drug events (ADE)
 - c. Over the counter (OTC) recommendation requests
 - d. Therapeutic substitutions or misuse or adherence
 - e. Follow-up on post-immunizations
 - f. Allergies
 - g. Drug interactions
8. Demonstrate proper event reporting procedures (event examples: medication errors, adverse effects, product integrity, MedWatch, near miss, root-cause analysis-RCA)
9. List types of prescription errors, to include but not limited to:
 - a. Abnormal doses
 - b. Early refills

- c. Incorrect quantities
 - d. Incorrect patient
 - e. Incorrect drug
10. Tailor communications to different audiences, including patients, caregivers, staff, and healthcare professions. Include both verbal and nonverbal techniques.
 11. Demonstrate the appropriate disposal of sharps.
 12. Demonstrate proper hygiene and cleaning standards, to include but not limited to:
 - a. Handwashing
 - b. Donning and removing personal protective equipment (PPE)
 - c. Cleaning counting trays, countertops, and equipment

Federal and State Requirements

13. Demonstrate federal requirements for handling and disposal of non-hazardous, hazardous, and pharmaceutical substances and waste.
14. Demonstrate federal requirements for controlled substance prescriptions (i.e., new, refill, transfer) and DEA controlled substance schedules.
15. Demonstrate federal (DEA/FDA) requirements for controlled substances in relation to the following:
 - a. Receiving, storing, ordering, labeling, dispensing, reverse distribution, take-back programs, and loss/theft
16. Understand the federal requirements for restricted drug programs and related medication processing (i.e., pseudoephedrine, Risk Evaluation and Mitigation Strategies-REMS)
17. List FDA recall requirements (i.e., medications, devices, supplies, supplements, and classifications)
18. Differentiate the levels of authorized access to pharmacy areas, identification requirements, levels of supervision required (i.e., law enforcement officers)
19. Explain state laws and regulations pertaining to pharmaceutical careers.

Order Entry and Processing

20. Demonstrate procedures to compound non-sterile products such as, ointments, mixtures, liquids, emulsions, suppositories, and enemas.
21. Demonstrate the ability to calculate and/or interpret the following with a minimum of a 90 percent accuracy:
 - a. Formulas, calculations, ratios, proportions, allegations, and conversions
 - b. Sig codes (b.i.d., t.i.d., Roman numerals), abbreviations, medical terminology, symbols for days supply, quantity, dose, concentration, and dilutions
22. Recognize equipment and supplies required for drug administration (i.e., spacers, oral and injectable syringes, unit dose, diabetic supplies, package size)
23. Recognize and understand lot numbers, expiration dates, and National Drug Code (NDC) numbers.
24. Demonstrate procedures for identifying and returning dispensable, non-dispensable, and expired medications and supplies (i.e., credit return, return to stock, reverse distribution)

Medication information

25. Recognize generic names, brand names, and classifications of medications.
 - a. Match common over the counter (OTC) products with their indications.
 - b. Match common behind the counter (BTC) products with their indications.
26. Describe therapeutic equivalence.
27. Recognize common and life-threatening drug interactions and contraindications (i.e., drug-disease, drug-drug, drug-dietary supplement, drug-laboratory, drug-nutrient).
28. List strengths/dose, dosage forms, routes of administration, special handling and administration instructions, and duration of drug therapy.
29. Differentiate common and severe medication side effects, adverse effects, and allergies.
30. Differentiate among the controlled substances schedules and the drugs within them (i.e., exempt narcotics, prescription requirements, Controlled Substances Act, DEA for controlled substances, expiration and refills)
31. Identify elements needed to verify the validity of the DEA number using the elements off and the formula for the DEA number.
32. Describe the indications of medications and dietary supplements.
33. Describe and calculate drug stability (i.e., oral suspensions, insulin, reconstitutables, injectables, vaccinations).
34. Recognize narrow therapeutic index (NTI) medications.
35. Describe physical and chemical incompatibilities related to non-sterile compounding and reconstitution.
36. Describe the proper storage of medications (i.e., temperature ranges, light sensitivity, restricted access).
37. Describe medication disposal methods based on product-specific requirements, such as: pharmacy operations and process flow, Safety data sheets (SDS), available disposal methods.
38. Access and use references and resources as needed to perform job duties (i.e., Poison Control Centers, State Board of Pharmacy regulations, Handbook on Injectables, Ident-a-drug, USP Standards, Orange Book, Red Book, Clinical information sources).

Character and Career and Technical Student Organizations

39. Review the competitive event guidelines for events related to pharmacy and incorporate into educational content (i.e., medical math, pharmacy science, medical terminology).
40. Describe and demonstrate the ethical characteristics required in pharmaceutical careers.
 - a. Health Insurance Portability and Accountability Act (HIPAA) compliance
 - b. Combat Methamphetamine Epidemic Act of 2005 (CMEA)
 - c. Drug Listing Act of 1972 (including elements of the NDC)
 - d. Food and Drug Act of 1906
 - e. Omnibus Budget Reconciliation Act of 1990 (OBRA 90)
 - f. Drug Supply Chain Security Act (DSCSA)
 - g. Medicare Modernization Act
 - h. Durham-Humphrey Amendment
 - i. Poison Prevention Packaging Act (PPPA)
 - j. OSHA
 - k. Joint Commission standards