

PHARMACY TECHNOLOGY FUNDAMENTALS

Curriculum Content Frameworks

Please note: All assessment questions will be taken from the knowledge portion of these frameworks.

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Grade Levels: 9-12 Course Code: 495280	Prerequisite:
Course Description: Provides an overview of the pharmacy technology field and develops the fundamental concepts and principles necessary for successful participation in the pharmacy field	

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Unit 1: The History of Pharmacy

Hours: 5

Terminology: Formulary, Pharmaceutical Care, Pharmaceutics, Pharmacology, Pharmakon

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
1.1 Define terminology	1.1.1 Prepare a list of terms with definitions
1.2 Understand the profession of pharmacy through 4 historical perspectives	1.2.1 List/describe 4 historical periods: Traditional/Ancient Era; Scientific/Empiric Era; Clinical/Industrialization Era; Pharmaceutical Care/Patient Care Era
1.3 Identify historical figures in pharmacy	1.3.1 Identify historical figures and their contributions to pharmacy: Hippocrates, Galen, Aristotle, Mithridates

Unit 2: The Profession of Pharmacy

Hours: 9

Terminology: Chain pharmacy, Community pharmacy, Compounding pharmacy, Franchise pharmacy, Hospital pharmacy, Independent pharmacy, Institutional pharmacy, Mail-order pharmacy, Managed care, Pharmacist, Pharmacy technician

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
2.1 Define terminology	2.1.1 Prepare a list of terms with definitions
2.2 Identify professional organizations associated with pharmacy	2.2.1 List the education requirements to be a pharmacist and a pharmacy technician
	2.2.2 List the career opportunities for a pharmacist and a pharmacy technician
	2.2.3 Describe the work environment of a pharmacist and a pharmacy technician
	2.2.4 Apply professional conduct and communication in a pharmacy environment
2.3 Identify professional organizations associated with pharmacy	2.3.1 Identify the most common pharmacy organizations: American Association of Pharmacy Technicians; National Pharmacy Technician Association; American Pharmacists Association; American Society of Health System Pharmacists; The Pharmacy Technician Certification Board
2.4 Understand code of ethics related to pharmacy	2.4.1 Demonstrate code of ethics for pharmacy technicians

Unit 3: Pharmacy Terminology

Hours: 9

Terminology: Abbreviations, Brand/trade name, Chemical name, Dosage form, Generic name, Labeling, Prefix, Root word, Route of administration, Suffix

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
3.1 Define terminology	3.1.1 Prepare a list of terms with definitions
3.2 Identify common abbreviations and symbols used in pharmacy	3.2.1 Interpret abbreviations and symbols used in pharmacy
3.3 Distinguish between brand/trade name and generic drug names	3.3.1 Identify and pronounce brand/trade names and generic drug names correctly
3.4 Identify pharmacy terminology	3.4.1 Identify and explain pharmaceutical terms such as prefixes, suffixes, and root words in their proper context
	3.4.2 Interpret prescription orders using pharmacy terminology
3.5 Identify professional jargon in pharmacy	3.5.1 Identify professional jargon in pharmacy and its use within the proper context

Unit 4: Pharmacy Law and Safety

Hours: 9

Terminology: Aulturated drugs, Civil law, Controlled substance, Controlled Substance Act, Criminal law, Defendant, Deposition, Disinfection, Drug Enforcement Administration (DEA), Felony, Food and Drug Administration (FDA), Food, Drug and Cosmetic Act , Drug Listing Act, Durham-Humphrey Ammendment, Health Information Portability and Accountability Act (HIPAA), Kefauver-Harris Ammendment, Litigant, Malpractice, Material Safety Data Sheet (MSDS), Misbranded drugs, Misdemeanor, National drug code, Negligence, Occupational Safety and Health Administration (OSHA), Personal Protection Equipment (PPE), Plaintiff, Poison Prevention Packaging Act, Regulation, Scope of practice, Sterilization, Tort, Universal precautions

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
4.1 Define terminology	4.1.1 Prepare a list of terms with definitions
4.2 Discuss various laws related to pharmacy	4.2.1 Identify and distinguish between state and federal regulations: Controlled Substance Act and their five schedules, Food, Drug and Cosmetic Act, Drug Listing Act, Durham-Humphrey Amendment, HIPAA, Kefauver-Harris Amendment, Poison Prevention Packaging Act
	4.2.2 Identify the federal agencies that regulate pharmacy: DEA, FDA, OSHA,
	4.2.3 Identify pharmacy related legal terms
	4.2.4 Identify violations and penalties of pharmacy law
4.3 Examine infection control techniques: disinfecting, handwashing, Material Safety Data Sheet (MSDS), safe operation of equipment, Personal Protection Equipment (PPE), sterilization, universal precautions	4.3.1 Identify and demonstrate infection control techniques and safety guidelines
	4.3.2 Use safety guidelines for pharmacy technicians

Unit 5: Dosage Forms and Routes of Administration

Hours: 9

Terminology: Ampule, Buccal, Capsule, Cream, Dosage form, Elixir, Enteric-coated tablet, Gel, Intradermal injection, Intramuscular injection, Intravenous injection, Liniment, Lozenge, Mixture, Ointment, Oral, Parenteral route of administration, Powder, Solution, Spirit, Subcutaneous injection, Sublingual route of administration, Suppository, Syrup, Tablet, Tincture, Topical, Vial

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
5.1	Define terminology	5.1.1	Prepare a list of terms with definitions
5.2	Define and differentiate dosage form and route of administration	5.2.1	Identify various dosage forms used in pharmacy
		5.2.2	Identify various routes of administration
		5.2.3	Examine techniques for routes of administration and their advantages and disadvantages

Unit 6: Retail/Community Pharmacy

Hours: 9

Terminology: Auxillary label, Inscription, Legend drug, Over-the-counter, Patient profile, Prescription, Salad, Signa, Subscription, Superscription

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
6.1 Define terminology	6.1.1 Prepare a list of terms with definitions
6.2 Identify how prescriptions are received, processed, and checked	6.2.1 Demonstrate how prescriptions are prepared and dispensed
	6.2.2 Demonstrate how prescriptions are packaged and delivered
6.3 Describe how prescriptions are dated, numbered, and labeled	6.3.1 Demonstrate process for dating, numbering and labeling prescriptions
	6.3.2 Identify requirements for refilling prescriptions
6.4 Analyze parts of a prescription stock label	6.4.1 Identify parts of a stock label: storage/handling requirements, expiration date and lot number, package size, NDC number, brand name, generic name, dosage form, strength per unit dose, legend label, and manufacturer
6.5 Understand the importance of the NDC numbers	6.5.1 Identify parts of an NDC number: Manufacturer, product, pack size
	6.5.2 Understand the role of the NDC number in preventing medication errors
6.6 Understand organizational structure in retail pharmacy	6.6.1 Identify organizational structure in retail pharmacy

Unit 7: Hospital Pharmacy

Hours: 9

Terminology: Cart fill list, Computerized physician order entry system, Investigational drug, Joint commission, Medication administration record, Pharmacy and therapeutics committee (P&T Committee), STAT order, Unit dose

CAREER and TECHNICAL SKILLS	
What the Student Should be Able to Do	
Knowledge	Application
7.1 Define terminology	7.1.1 Prepare a list of terms with definitions
7.2 Identify how medication orders are received, processed, and checked in a hospital	7.2.1 Demonstrate how medication orders are prepared and dispensed
	7.2.2 Demonstrate how medication orders are packaged and delivered
7.3 Describe how medication orders are dated, numbered, and labeled in a hospital	7.3.1 Demonstrate process for dating, numbering and labeling prescriptions
7.4 Analyze parts of medication containers	7.4.1 Identify parts of a medication container: Unit dose, IV bags, syringe, floor stock, cart fill
7.5 Understand organizational structure in a hospital pharmacy	7.5.1 Identify organizational structure in a hospital pharmacy

Unit 8: Compounding

Hours: 13

Terminology: Beyond use dating, Calibration, Class A/Class III prescription balance, Compounding, Good compounding practices, Levigation, Mortar and pestle, Solution, Suspension, Solvent, Tritration

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
8.1	Define terminology	8.1.1	Prepare a list of terms with definitions
8.2	Analyze the components of equipment used in compounding	8.2.1	Identify the equipment and procedures used for compounding
8.3	Explain the various techniques used in compounding	8.3.1	Demonstrate the proper techniques for measuring, weighing, and compounding medications

Unit 9: Pharmacy Math

Hours: 13

Terminology: Apothecary system, Avoirdupois system, Clark's rules, Conversion, Household measurement system, Mass, Metric system, Volume, Weight, Young's rules

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
9.1	Define terminology	9.1.1	Prepare a list of terms with definitions
9.2	Examine four units of measurement: apothecary, avoirdupois, household, and metric systems	9.2.1	Identify and convert four units of measurement in: temperature, time, volume, and weight
		9.2.2	Identify use of percentages, ratios, and proportions in pharmacy
		9.2.3	Apply use of fractions and decimals in pharmacy
9.3	Identify use of military time	9.3.1	Convert standard time to military time
9.4	Examine Clark's rules and Young's rules	9.4.1	Identify Clark's rules and Young's rules and their uses in pediatric doses
9.5	Examine body surface area	9.5.1	Identify body surface area in calculating doses

Unit 10: Pharmacology

Hours: 13

Terminology: Adverse reaction, Contraindication, Legend, Over-the-counter (OTC), Pharmacology, Side effects, Tolerance, Toxicity

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
10.1 Define terminology	10.1.1 Prepare a list of terms with definitions
10.2 Examine medications and drug classes	10.2.1 Identify medications 10.2.2 Identify the most common drug classes as they relate to medical conditions and body systems

Unit 11: Pharmacy Operations

Hours: 11

Terminology: Independent purchasing, Inventory, Inventory control, Invoice, Just-in-time (JIT) system, Medicaid, Medicare, Premium, Subscriber, Third-party payer, Time purchase, Want book

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
11.1 Define terminology	11.1.1 Prepare a list of terms with definitions
11.2 Discuss the 3 main types of purchasing	11.2.1 Identify independent, group, and time purchasing
11.3 Explains cost analysis and cost control	11.3.1 Identify cost analysis and cost control
11.4 Describe the products reviewing process	11.4.1 Identify the steps involved when medications and products are received in hospital or retail pharmacies
11.5 Discuss the main components involved in a modern record keeping system	11.5.1 Identify the 3 main components of a modern record keeping system
11.6 Describe various examples of medical insurance coverage	11.6.1 List and describe the 3 main types of insurances: private, managed care programs, government plans

Unit 12: Career and Technical Student Organizations (SkillsUSA / HOSA)

Hours: 12

Terminology: Assess, Assessment, Behavior, Business meeting, Career, Competency, Critique, Cultural diversity, Customers, Equity issues, Expectation, Government, Image, Interview, Job application, Journal, Management, Mentor, Organizational chart, Parliamentary procedure, Portfolio, Presentation, Professional organizations, Résumé, Self-motivation, Short-term goals, Social etiquette, Stress, Task, Trade unions

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
12.1 Define terminology	12.1.1 Prepare a list of terms with definitions
12.2 Outline a self-assessment and identify individual learning styles	12.2.1 Show individual strengths
	12.2.2 Show areas in need of improvement
12.3 Describe self-motivation techniques and establish short-term goals	12.3.1 Prepare a list of short-term goals
	12.3.2 Discuss ways to change or improve lifestyle appearance and behavior
12.4 Give examples of individual time-management skills	12.4.1 Prepare and maintain a time journal
	12.4.2 Outline ways to improve time management skills
12.5 Predict future occupations	12.5.1 Research the Internet to explore for career opportunities within specified fields of
	12.5.2 Prepare a presentation on a specified career area
12.6 Identify the customer	12.6.1 Differentiate between external and internal customers
	12.6.2 Identify factors which contribute to poor customer relationships
12.7 Identify the benefits of doing a community service project	12.7.1 Outline ways to become involved in the community
	12.7.2 Develop a community service project
12.8 Describe effective communication with others	12.8.1 Note personal barriers to listening
	12.8.2 Relate a personal plan to overcome barriers to listening
12.9 Give locations for a shadowing activity	12.9.1 Summarize and relate an experience of job shadowing activity
12.10 Identify the components of an employment portfolio	12.10.1 Present parts of a portfolio
	12.10.2 Compile a personal employment portfolio for an interview
12.11 List proficiency in program competencies	12.11.1 Construct an interpersonal competency assessment
12.12 Describe how to measure/modify short-term goals	12.12.1 Discuss how to pursue short-term goal(s)
12.13 Identify stress sources	12.13.1 Prepare a list of personal sources of stress
	12.13.2 Outline techniques to cope with individual sources of stress
12.14 Identify characteristics of a positive image	12.14.1 List behaviors and traits that lead to a positive image
	12.14.2 Note behaviors and traits that lead to a negative image

CAREER and TECHNICAL SKILLS

What the Student Should Know

What the Student Should be Able to Demonstrate

Knowledge	Application
12.15 Describe how team skills can be applied to a group project	12.15.1 Form a team to develop a class project
	12.16.2 Prepare a critique of the meeting attended
12.17 List business meeting skills	12.17.1 Relate the basic rules required to ensure an orderly and business-like meeting
	12.17.2 Demonstrate with role-playing to illustrate appropriate meeting skills
12.18 Outline a survey for employment opportunities	12.18.1 Compile information on a particular employment opportunity of interest
	12.18.2 Perform an internet search of a specific career area
12.19 Select a professional journal for review and develop a three to five minute	12.19.1 Prepare a presentation on the content, purpose, and distribution of a particular professional journal
12.20 Identify customer expectations	12.20.1 List customer expectations
	12.20.2 Discover the consequences of unmet customer expectations
12.21 List parts of a job application	12.21.1 Prepare a job application from various businesses in the community
	12.21.2 Demonstrate a mock job interview
12.22 Outline your employment portfolio	12.22.1 Construct a personal employment portfolio
12.23 Identify supervisory and management roles in an organization	12.23.1 Prepare an organizational chart
	12.23.2 Outline the responsibilities of managers and supervisors
12.24 Outline safety issues	12.24.1 Research safety issues within a given career area

Glossary

Unit 1: The History of Pharmacy

1. Formulary – approved list of medications to be used in an institution /facility or to be reimbursed by an insurance company health care plan as determined by the Pharmacy and Therapeutics Committee
2. Pharmaceutical care – term used to describe the care provided to a patient by the pharmacy, which encompasses all aspects of drug therapy from dispensing to drug monitoring
3. Pharmaceutics – the science of preparing and dispensing drugs
4. Pharmacology – the science of drugs and their interactions with the systems of living animals
5. Pharmakon – a Greek word meaning a magic spell, remedy, or poison that was used in early records to represent the concept of a drug

Unit 2: The Profession of Pharmacy

1. Chain pharmacy – a community pharmacy that consists of several similar pharmacies in the region that are corporately owned
2. Community pharmacy – any independent, chain, or franchise pharmacy that dispenses prescription medications to outpatients; also called a retail pharmacy
3. Compounding pharmacy – a pharmacy that specializes in the preparation of nonsterile (and sometimes sterile) preparations that are not commercially available
4. Franchise pharmacy – a small chain of professional community pharmacies that dispense and prepare medications but are independently owned; sometimes called an apothecary
5. Hospital pharmacy – an institutional pharmacy that dispenses and prepares drugs and provides clinical services in a hospital setting
6. Independent pharmacy – a community pharmacy that is privately owned by the pharmacist
7. Institutional pharmacy – a pharmacy that is organized under a corporate structure, following specific rules and regulations for accreditations
8. Mail– order pharmacy – a large volume centralized pharmacy operation that uses automation to fill and mail prescriptions to a patient
9. Managed Care – a type of health insurance system that emphasizes keeping the patient healthy or diseases controlled in order to reduce healthcare costs
10. Pharmacist – one who is licensed to prepare and dispense medications, counsel patients, and monitor outcomes pursuant to a prescription from a license health professional
11. Pharmacy technician – an individual working in a pharmacy who, under the supervision of a licensed pharmacist, assists in activities not requiring the professional judgement of a pharmacist; also called the pharmacy tech or tech

Unit 3: Pharmacy Terminology

1. Abbreviations – the shortened forms of words representing commonly used medical terms
2. Brand/trade name – the name under which the manufacturer markets a drug; also known as the trade name
3. Chemical name – a name that describes a drug's chemical makeup
4. Dosage form – vehicle into which a drug is incorporated to enable administration
5. Generic name – a name that is given to a drug by its manufacturer; sometimes denotes a drug that is not protected by a trademark; also referred to as a USAN (United States Adopted Name)
6. Labeling – the act of translating abbreviations into a meaningful message for the patient
7. Prefix – a structure at the beginning of a word that modifies the meaning of the root
8. Root word – the foundation, or main part, of a word that gives the word its central meaning
9. Route of administration – the path by which a substance is taken into the body (i.e., by mouth, injection, inhalation, rectum, or by application)
10. Suffix – a word ending that modifies the meaning of the root

Unit 4: Pharmacy Law and Safety

1. Adulterated drugs – consisting in whole or in part of any filthy, putrid or decomposed substance; ones prepared, packed or held under
2. Civil law – rules and regulations that govern the relationship between individuals within society
3. Controlled substance – pharmacologic agent included in schedule I, II, III, IV, or V, which has potential for physical and/or psychological dependence and abuse
4. Controlled Substance Act – laws created to combat and control drug abuse
5. Criminal law – rules and regulations that govern the relationship of the individuals within society as a whole
6. Defendant – the person or group against whom charges are brought in a court action
7. Deposition – an oral testimony taken by a court reporter taken at a location outside the courtroom subject to the same requirements as truth
8. Disinfection – the process of killing pathogenic organisms or rendering them inert
9. Drug Enforcement Administration (DEA) – agency found in the Department of Justice, whose mission is to enforce the controlled substance laws and regulations of the United States
10. Felony – a serious crime, such as murder, kidnapping, assault, or rape, that is punishable by imprisonment for more than one year
11. Food and Drug Administration (FDA) – the agency of the federal government that is responsible for ensuring the safety and efficacy of food and drugs prepared for the market
12. Food, Drug, and Cosmetic Act – regulation that created the FDA and required pharmaceutical manufacturers to file a new drug applications with each new drug before marketing
13. Drug Listing Act – created the NDC numbering system for all drugs
14. Durham– Humphrey Amendment – stated that medications would be classified as legend and over the counter
15. Health Information Portability and Accountability Act (HIPAA) – a comprehensive federal law passed in 1996 to protect all patient identifiable medical conditions

16. Kefauver– Harris Amendment – required clinical trials for all medications
17. Litigant – a party to a lawsuit
18. Malpractice – a form of negligence in which the standard of care was not met and was a direct cause of injury
19. Material Safety Data Sheet (MSDS) – contains important information on hazards and flammability of chemicals used in compounding and procedures for treatment of accidental ingestion or exposure
20. Misbranded drugs – any item not labeled properly
21. Misdemeanor – less serious crime punishable by fine or imprisonment for less than one year
22. National drug code – a unique and permanent product code assigned to each new drug as it becomes available in the marketplace; it identifies the manufacturer or distributor, the drug formulation, and the size and type of its packaging
23. Negligence – failure to use a reasonable amount of care to prevent injury or damage to another
24. Occupational Safety and Health Administration (OSHA) – federal agency in charge of safety in the workplace
25. Personal Protection Equipment (PPE) – any equipment used on a person to protect them from dangers in a workplace
26. Plaintiff – the person who files a lawsuit initiating a civil legal action. In criminal actions, the prosecution (government) is the plaintiff, acting on behalf of the people
27. Poison Prevention Packaging Act – act that requires RXs and OTCs be packaged in child resistance containers
28. Regulation – a written rule and procedure that exists to carry out a law of the state or federal government
29. Scope of practice – defines what a profession can do
30. Sterilization – a process that destroys the microorganisms in a substance, resulting in asepsis
31. Tort – a civil wrong committed against person or property
32. Universal precautions – procedures followed in a healthcare settings to prevent infection as a result of exposure to blood or other bodily fluids

Unit 5: Dosage Forms and Routes of Administration

1. Ampule – a sealed glass container that usually contains a single dose of medicine. The top of the ampule must be broken off to open the container.
2. Buccal – pertaining to the inside of the cheek
3. Capsule – a solid dosage form in which the drug is enclosed in either a hard or soft shell of soluble material
4. Cream – a cosmetically acceptable oil in water emulsion for topical use on the skin
5. Dosage form – the physical manifestation of a drug (e.g. capsule, tablet)
6. Elixir – a clear, sweetened, hydroalcoholic liquid intended for oral use
7. Enteric-coated tablet – a tablet covered in a special coating to protect it from stomach acid, allowing the drug to dissolve in the intestines
8. Gel – a jelly or the solid or semisolid phase of a colloidal solution
9. Intradermal injection – injection administered between the layers of skin
10. Intramuscular injection – injection administered inside a muscle
11. Intravenous injection – most commonly used in the context of an injection given directly into a vein
12. Liniment – a liquid preparation for external use only, usually applied to the skin with friction
13. Lozenge – a medication in a sweet tasting formulation that is absorbed in the mouth
14. Mixture – a combination of products
15. Ointment – a semisolid preparation that usually contains medicinal substances and is intended for external application
16. Oral – by mouth

17. Parenteral route of administration – the injection or infusion of fluids and/or medications into the body, bypassing the GI tract
18. Powder – fine particles of medications used in tablets and capsules
19. Solution – a liquid dosage form in which the active ingredients are completely dissolved in a liquid vehicle
20. Syrup – an aqueous solution thickened with a large amount of sugar (generally sucrose) or a sugar substitute such as sorbitol or propylene glycol
21. Tablet – the solid dosage form produced by compression and containing one or more active and inactive ingredients
22. Tincture – an alcoholic or hydroalcoholic solutions of extractions from plants
23. Topical – the administration of a drug on the skin or any mucous membrane such as the eyes, nose, ears, lungs, vagina, urethra, or rectum; usually administered directly to the surface of the skin
24. Vial – a container that holds a medication

Unit 6: Retail/Community Pharmacy

1. Auxillary label – a supplementary label added to a medication container at the discretion of the pharmacist that provides additional directions
2. Inscription – that part of a prescription containing the names and amounts of the ingredients
3. Legend drug – a drug sold only by prescription and labeled “Rx only”
4. Over– the– counter – a drug sold without a prescription
5. Patient profile – a record kept by the pharmacy listing a patient's identifying information, insurance information, medical and prescription history, and prescriptions preferences
6. Prescription – an order for medication for a patient that is written by a physician or a qualified licensed practitioner to be filled by a pharmacist
7. SALAD drug – a "Sound Alike, Look Alike Drug "
8. Signa – the portion of a prescription that contains a statement of the directions for use
9. Subscription – the part of a prescription giving the directions to the pharmacist
10. Superscription – the part of a prescription that bears the Latin word recipe represented by 

Unit 7: Hospital Pharmacy

1. Cart fill list – a print out of all unit dose profiles for all patient
2. Computerized physician order entry system – a computerized system in which the physician inputs the medication order directly for electronic receipt in the pharmacy
3. Investigational drug – drugs used in clinical trials that's have not yet been approved by the FDA for use in the general population or drug used for nonapproved indications
4. Joint Commission – an independent, not for profit group that sets the standards by which safety and quality of health are are measured and accredits hospital according to those standards; previously called the Joint Commission on Accreditation of Healthcare Organizations
5. Medication administration record – a form in the patient medical chart used by nurses to document the administration time of all drugs
6. Pharmacy and Therapeutics Committee (P&T Committee) – hospital committee chaired by a physician and composed of physicians, nursing staff, and pharmacists, who establish and maintain a listing of approved drugs for use in a hospital
7. STAT order – immediately
8. Unit dose – medication packaged in a single dose

Unit 8: Compounding

1. Beyond use dating – the documentation of the date after which a compounded preparation expires and should no longer be used
2. Calibration – determination of the accuracy of an instrument by comparing its output with that of a known standard or an instrument known to be accurate
3. Class A/Class III prescription balance – also called the Class III Balance; a two pan device that may be used for weighing small amounts of drugs (not more than 120g)
4. Compounding – the preparation, mixing, assembling, packaging and labeling of a drug product based on a prescription order from a licensed practitioner for the individual patient
5. Good compounding practices – USP standards in many areas of practice to ensure high quality compounded prescriptions
6. Levigation – gradual circular motion used to incorporate solid particles into a diluent
7. Mortar and pestle – a cup shaped vessel in which materials are ground or crushed by a solid device that is used to crush or grind materials
8. Solution – homogenous mixture that is prepared by dissolving a solid, liquid, or gas in another liquid
9. Suspension – liquid preparations consisting of solid particles dispersed throughout a liquid phase in which the particles are not soluble
10. Solvent – liquid preparations consisting of solid particles dispersed throughout a liquid phase in which the particles are not soluble
11. Triturate – crush or grind solid particles using a mortar and pestle to decrease particle size for ease of incorporation into a compounded preparation

Unit 9: Pharmacy Math

1. Apothecary system – a very old English system of measurement that has been replaced by the metric system
2. Avoirdupois system – a system of weighing or measuring in which 7000 grains equal 1 lb.
3. Clark's Rule – method of calculating a child's dose based upon the child's weight and the recommended adult dose of a particular drug
4. Conversion – the changing of units
5. Household measurement system – system of measurement used in most American homes that is not precisely accurate
6. Mass – the metric unit of mass is the kilogram
7. Metric system – most common, most accurate, and safest system of measurement based on the decimal system
8. Volume – liquid volume is expressed in liters or milliliters
9. Weight – the gravitational force exerted on an object
10. Young's Rule – method of calculating a child's dose based upon the child's age and the recommended adult dose of a particular drug

Unit 10: Pharmacology

1. Adverse reaction – any unexpected obvious change in a patient's condition that the physician suspects may be due to a drug
2. Contraindication – diseases, conditions, and symptoms for which a drug will not be beneficial and may do harm
3. Legend – a drug sold only by prescription and labeled “Rx only”
4. Over-the-Counter (OTC) – a drug sold without a prescription
5. Pharmacology – the science of drugs and their interactions with the systems of living animals
6. Side effects – secondary responses to a drug other than the primary therapeutic effect for which the drug was intended
7. Tolerance – a decrease in response to the effects of a drug due to its continued administration
8. Toxicity – the state of being noxious; refers to a drug's ability to poison the body

Unit 11: Pharmacy Operations

1. Independent purchasing – the Director of Pharmacy or hospital purchasing agent directly contacts and negotiates pricing with pharmaceutical manufacturers
2. Inventory – the entire stock of products on hand for sale on a given day
3. Inventory control – controlling the amount of product on hand to maximize the return on investment
4. Invoice – a form describing a purchase and the amount due
5. Just-in-time system – involves frequent in quantities that just meet supply needs until the next ordering time
6. Medicaid – a federal/state government health insurance program for low income and disabled citizens
7. Medicare – a federal government health insurance program for elderly patients
8. Premium – a cost of coverage for the insurance policy
9. Subscriber – the individual or organization protected in case of loss under the terms of an insurance policy
10. Time purchase – the time that the purchase order was made
11. Want book – a fixed number of dose units in a drug stock container, usually consisting of a month's supply or 30 tablets or capsules

Unit 12: Career and Technical Student Organizations (SkillsUSA / HOSA)

1. Assess – to determine the value, significance, or extent; to judge
2. Assessment – a tool used to determine value, significance, or extent
3. Behavior – the actions one takes, how one conducts oneself
4. Business meeting – planned gathering of individuals (occupational, work, trade, or organizational) that is methodical, and systematic; the meeting is for a common purpose
5. Career – a chosen pursuit, the general course of progression of one's working life
6. Competency – the knowledge that enable one to comprehend and complete a task
7. Critique – a critical review or commentary
8. Cultural diversity – integrated existence of ethnic groups based on their values, beliefs, behavior patterns (social, educational, economic, religious, artistic values)
9. Customers – one who buys goods or services
10. Equity issues – a point of matter affecting the justice and fairness for all concerned
11. Expectation – eager anticipation; to look forward to the probable occurrence or appearance of something
12. Government – the agency or apparatus through which a governing individual or body functions and exercises authority
13. Image – the public's opinion or concept of something
14. Interview – a formal, in person meeting in which the assessment of the qualifications of an applicant are demonstrated/determined
15. Job application – a form or document used by an employer when hiring prospective employees
16. Journal – a personal record of occurrences, experiences, reflections kept on a regular basis
17. Management – the person or persons who control or direct a business or other enterprise

18. Mentor – a wise or trusted counselor or teacher
19. Organizational chart – a chart that reflects the structure through which individuals cooperate systematically to conduct business
20. Parliamentary procedure – a body of rules governing a meeting
21. Portfolio – a portable case for holding materials, such as photographs, drawings, or other materials that represent a person's work
22. Presentation – a performance; a formal introduction; the process of offering for consideration or display
23. Professional organization – a service provider utilizing a business relationship that allows outsourcing of human resources tasks, mainly for small to mid-sized business that do not have the need or resources for a dedicated human resources department; the concept is virtually unknown outside of the United States
24. Résumé – a brief account of one's professional or work experience and qualifications often submitted with a job application
25. Self-motivation – to take action, move forward of one's own volition
26. Short-term goals – goals or targets that are reachable with a short or brief period of time
27. Stress – an extreme pressure, strain, or difficulty
28. Task – a function to be performed
29. Trade unions – a labor union, especially one limited in membership to people in the same trade