

Course Title: Introduction to Pharmacy

Unit:1	Career Opportunities
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Content Standard(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <ol style="list-style-type: none"> 1. Trace the development of pharmaceuticals. <ul style="list-style-type: none"> • Demonstrating the use of pharmaceutical resources Examples: Physicians' Desk Reference (PDR), Hospital Formulary 2. Compare roles of the pharmacist and the pharmacy technician in various settings, including the hospital and retail pharmacy.
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Learning Objective(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <ol style="list-style-type: none"> 1. Research and identify the development of pharmaceuticals drug sources, drug actions and their effect on the human body 2. Identify roles of the pharmacist and the pharmacy technician as they relate to various settings. 3. Identify career options related to pharmacology. 4. Apply the skills necessary to interpret and understand pharmacy and medical terminology.
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Essential Question(s):	What skills and knowledge are essential for success as a health care worker in the 21 st century?
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Content Knowledge	Suggested Instructional Activities Rigor & Relevance Framework (Quadrant)	Suggested Materials, Equipment and Technology Resources
<ol style="list-style-type: none"> 1. Development of pharmaceuticals <ol style="list-style-type: none"> a. Pharmaceutical resources, Physicians' Desk Reference (PDR), Hospital Formulary 2. Roles of the Pharmacist and Pharmacy Technicians <ol style="list-style-type: none"> a. Duties that may be performed by the pharmacy technician b. Assist in monitoring federal, state and local laws c. Refilling prescriptions under direct supervision d. Manage prescription and non-prescription drug lists in the 	<p>Group Investigation Research Instructional Technology Worksheet Guest Speakers</p>	<p>Textbooks Workbooks Reference Books Computers/Internet PDRs Guest Speakers</p>

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Unit Assessment:	Tests, oral presentations
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Unit/Course CTSO Activity:	HOSA Pharmacology knowledge tests
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Unit/Course Culminating Product:	Pharmacy Technician certification exam, Internship
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Course/Program Credential(s): X <input type="checkbox"/> Credential <input type="checkbox"/> Certificate <input type="checkbox"/> Postsecondary Degree <input type="checkbox"/> University Degree <input type="checkbox"/> Other:

Course Title: Introduction to Pharmacy

Unit:2	Legal and Ethical Implications
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Content Standard(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <ol style="list-style-type: none"> 3. Describe ethical characteristics required in the pharmacy workplace. 4. Explain state laws and regulations pertaining to a career in pharmacy. <ul style="list-style-type: none"> • Identifying functions of pharmacy regulatory agencies such as Drug Enforcement Administration (DEA), Food and Drug Administration (FDA), and Occupational Safety and Health Administration (OSHA)
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Learning Objective(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <ol style="list-style-type: none"> 1. Identify ethical characteristics for the pharmacy workplace. 2. Identify state laws and regulations pertaining to pharmacy careers. 3. Analyze regulations and practices related to storage mixtures and handling of pharmaceuticals. 4. Interpret unethical behaviors and effect on consumers.
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Essential Question(s):	What skills and knowledge are essential for success as a Health Care Worker in the 21 st Century related to Pharmacy?
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Content Knowledge	Suggested Instructional Activities Rigor & Relevance Framework (Quadrant)	Suggested Materials, Equipment and Technology Resources
<ol style="list-style-type: none"> 1. Pharmacy workplace ethics 2. Pharmacy laws and regulations <ol style="list-style-type: none"> a. Drug Enforcement Administration b. Food and Drug Administration c. Occupational Safety and Health Administration 3. HIPPA regulations 	<p>Read Worksheets Think-Pair-Share Guest Speakers Group Investigation</p>	<p>Textbooks Workbooks Guest Speakers White Boards Tour</p>

Unit Assessment:	Test and Projects
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Unit/Course CTSO Activity:	HOSA Pharmacy Knowledge Test
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Unit/Course Culminating Product:	Pharmacy technician certification exam and/or Internship
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Course/Program Credential(s): X <input type="checkbox"/> Credential <input type="checkbox"/> Certificate <input type="checkbox"/> Postsecondary Degree <input type="checkbox"/> University Degree <input type="checkbox"/> Other:

Course Title: Introduction to Pharmacy

Unit:3	Medical Terminology
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Content Standard(s) and Depth of Knowledge Level(s):	Students will: 5. Translate medical terms, symbols, and abbreviations from prescriptions to laymen's terms.
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Learning Objective(s) and Depth of Knowledge Level(s):	Students will: 1. Define medical terms, symbols, and abbreviations related to prescriptions. 2. Use medical terms to calculate dosages, systems of measurement and conversions from one system to another. 3. Solve basic mathematical problems involving fractions, decimals, percentages, ratios and proportions.
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Essential Question(s):	What skills and knowledge are needed for success as a Health Care Worker in the 21 st Century as related to Pharmacy?
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Content Knowledge	Suggested Instructional Activities Rigor & Relevance Framework (Quadrant)	Suggested Materials, Equipment and Technology Resources
1. Medical terms, symbols, and abbreviations related to Pharmacy 2. Conversions between systems of measurement 3. Root words and symbols	Memorization Flash Cards Games Quiz Bowls	Textbooks Index cards Game pieces

Unit Assessment:	Test and compilation of flash cards
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Unit/Course CTSO Activity:	HOSA Knowledge test Pharmacology
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**Unit/Course
Culminating
Product:**

Pharmacy technician certification exam and/or Internship

Course/Program Credential(s): X Credential Certificate Postsecondary Degree University Degree
 Other:

Course Title: Introduction to Pharmacy

Unit:4	Technology
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Content Standard(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <p>6. Use technology to facilitate transactions in a pharmacy. Examples: computers, fax machine, cash register, scanners, etc.</p>
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Learning Objective(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <p>1. Utilize a variety of technology related to a pharmacy setting. 2. Use technology to assess, process and retrieve information with appropriate supervision.</p>
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Essential Question(s):	What skills and knowledge are needed for success as a Health Care Worker in the 21 st Century in Pharmacy?
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Content Knowledge	Suggested Instructional Activities Rigor & Relevance Framework (Quadrant)	Suggested Materials, Equipment and Technology Resources
1. Current technologies used in pharmaceuticals 2. Use technology to enhance safety of consumers	Demonstrations Simulations/Role Playing Clinical Assignment in Pharmacy	Pharmacy related technology Demonstration

Unit Assessment:	Lab Performance and Clinical Evaluation
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Unit/Course CTSO Activity:	HOSA Knowledge skills test
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Unit/Course Culminating Product:	Pharmacy technician certification exam and/or Internship
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Course/Program Credential(s): <input checked="" type="checkbox"/> X <input type="checkbox"/> Credential <input type="checkbox"/> Certificate <input type="checkbox"/> Postsecondary Degree <input type="checkbox"/> University Degree <input type="checkbox"/> Other:

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Course Title: Introduction to Pharmacy

Unit:5	Mathematics Concepts
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Content Standard(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <p>7. Use mathematics concepts in pharmaceutical settings.</p> <ul style="list-style-type: none"> • Calculating decimals, fractions, proportions, intravenous (IV) flow, and dosages; converting units between systems
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Learning Objective(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <p>1. Apply mathematical concepts to the pharmacy setting.</p>
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Essential Question(s):	What skills and knowledge are needed for success as a Health Care Worker in the 21 st Century as related to Pharmacy?
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Content Knowledge	Suggested Instructional Activities Rigor & Relevance Framework (Quadrant)	Suggested Materials, Equipment and Technology Resources
<p>1. Mathematical concepts for Pharmacy</p> <p>2. Conversion of metrics between systems</p>	<p>Read</p> <p>Worksheets</p> <p>Note taking</p> <p>Guided Practice</p>	<p>Textbooks</p> <p>Handouts</p> <p>Software</p> <p>Teaching equipment</p> <p>Videos</p>

Unit Assessment:	Test and Self-Assessments
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Unit/Course CTSO Activity:	HOSA Knowledge test Pharmacology
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**Unit/Course
Culminating
Product:**

Pharmacy technician certification exam and/or Internship

Course/Program Credential(s): X Credential Certificate Postsecondary Degree University Degree
 Other:

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Unit:6	Technical Skills
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Content Standard(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <ol style="list-style-type: none"> 8. Demonstrate the procedure for filling prescriptions in a simulated pharmacy setting, including accepting medication orders, preparing prescription orders, labeling information, and dispensing drugs.
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Learning Objective(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <ol style="list-style-type: none"> 1. Describe the procedure for filling prescriptions in the pharmacy setting. 2. Demonstrate use of dosage calculations, measurements and drug considerations.
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Essential Question(s):	What skills and knowledge are needed for success as a Health Care Worker in the 21 st Century as related to Pharmacy?
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Content Knowledge	Suggested Instructional Activities Rigor & Relevance Framework (Quadrant)	Suggested Materials, Equipment and Technology Resources
<ol style="list-style-type: none"> 1. Drug measurements and conversions 2. Interpretation of technical information 3. Research of drug information 	<p>Demonstrations Read Guest speaker Guided practice Clinical rotations</p>	<p>Clinical sites Textbooks Guest speaker Simulations/role playing</p>

Unit Assessment:	Clinical evaluation and test
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Unit/Course CTSO Activity:	HOSA Knowledge test Pharmacology
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Unit/Course Culminating Product:	Pharmacy technician certification exam and/or Internship
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Course/Program Credential(s): X <input type="checkbox"/> Credential <input type="checkbox"/> Certificate <input type="checkbox"/> Postsecondary Degree <input type="checkbox"/> University Degree <input type="checkbox"/> Other:

Course Title: Introduction to Pharmacy

Unit:7	Pharmacology
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Content Standard(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <ol style="list-style-type: none"> 9. Identify classifications of selected drugs. 10. Explain routes used for the administration of medicine during a simulated medical case study. 11. Differentiate among drug interactions, drug reactions, and side effects.
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Learning Objective(s) and Depth of Knowledge Level(s):	<p>Students will:</p> <ol style="list-style-type: none"> 1. Identify and list classifications of selected drugs. 2. Identify routes used for medication administration. 3. Compare and contrast drug interactions, drug reactions, and side effects.
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Essential Question(s):	What skills and knowledge are needed for success as a Health Care Worker in the 21 st Century as related to Pharmacy?
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Content Knowledge	Suggested Instructional Activities Rigor & Relevance Framework (Quadrant)	Suggested Materials, Equipment and Technology Resources
<ol style="list-style-type: none"> 1. Drug Classifications 2. Routes of Drug Administration 3. Drug interactions, reactions, and side effects 	<p>Read Worksheets Demonstration</p>	<p>Textbooks Workbooks Support materials Lab supplies</p>

Unit Assessment:	Test and Skill simulations check – off
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Unit/Course CTSO Activity:	HOSA Knowledge test Pharmacology
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**Unit/Course
Culminating
Product:**

Pharmacy technician certification exam and/or Internship

Course/Program Credential(s): X Credential Certificate Postsecondary Degree University Degree

Other: