

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: MAST-321 Department: Medical Assistant
 Course Title: Introduction to Pharmacology Semester: Fall Year: 2003

Course Objective	Competencies
<ol style="list-style-type: none"> 1. The more common definitions in the study of pharmacology, the formation of drugs, and drug legislation and standards. 2. The need for registration with the Drug Enforcement Administration, accurate record keeping of medication, proper use of pharmaceutical references and resources, and distinguishing between generic and trade names of pharmaceutical preparations. 	<ol style="list-style-type: none"> 1. Define the vocabulary of each chapter. 2. List the major sources of drugs with examples. 3. Define drug standards and explain why they are necessary. 4. List the major drug laws and their enforcement agencies. 1. List the federal agencies that enforce the drug laws. 2. Identify how the medicine cart and a medicine tray are used in giving medicines. 3. Define how the Kardex, medicine card, and medication record are used to communicate medication orders. 4. Interpret how medication orders are transcribed onto Kardex, medicine cards, and/or medication records. 5. Summarize how and why controlled substances are counted at the beginning of each working shift, how they are disposed in compliance with government regulations. 6. Describe the patient chart and how to fill out related forms, determine needs for documentation and reporting. 7. List the principles of proper charting. 8. Identify the importance of reporting medication errors and missed medications on the proper forms. 9. Explain how to prepare and maintain medical records. 10. List three drug references and explain how to use them; prepare assigned drug cards using these drug references. 1. List, describe, and define the four types of names by which drugs are known.

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<p>3. The contrasting roles and responsibilities of the health care team in prescribing, dispensing, and administering medications.</p>	<ol style="list-style-type: none"> 1. List the various forms of medications ranging from liquids to solids; explain the correct procedures for storage and use. 2. List and describe the rules for administering medications. 3. Identify who is allowed to give medications. 4. Describe the difference between a physicians order sheet and a prescription blank and name the parts of a medication order. 5. Define the meanings of abbreviations, for medication forms, routes, administration times, and general medical abbreviations. 6. Explain why it is necessary to practice within the scope of education, training and personal capabilities.
<p>4. The various components of the prescription; its use and need.</p>	<ol style="list-style-type: none"> 1. Compare the difference between a physician’s order sheet and a prescription. 2. Identify the parts of a prescription, listing the purpose of each part.
<p>5. The major routes and methods of drug administration and discuss the problems and advantages associated with each.</p>	<ol style="list-style-type: none"> 1. List and describe the rules for administering medication. 2. List the various forms of medication ranging from liquids to solids; explain the correct procedures for storage and use. 3. List and describe the rules for administering medication, the advantages, and disadvantages.
<p>6. Providing the necessary information to patients regarding safe administration of medications, side effects and interactions.</p>	<ol style="list-style-type: none"> 1. Explain how one can serve as liaison between physician and patient. 2. Discuss the four basic drug actions; list and describe the four body processes that affect drug action. 3. Identify at least ten factors influencing drug action. 4. Differentiate between systemic and local drug effects. 5. Identify the difference between the main effect and side effects. 6. Recognize descriptions of major adverse reactions. 7. Explain the difference between psychological and physical drug dependence.
<p>7. The various uses and effects of medication on each of the body</p>	<ol style="list-style-type: none"> 1. State the two main actions of anti-infectives on germs.

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<p>systems: Drugs for infection and cancer.</p>	<ol style="list-style-type: none"> 2. Explain why drug resistance, drug sensitivity, and superinfection are important concerns in anti-infective drug therapy. 3. Name at least two problems that may arise in giving penicillin. 4. List the most common uses of sulfonamides and gamma globulin. 5. Name the three characteristics of all cancers. 6. State three primary ways a health care worker can be exposed to hepatitis B virus and human immunodeficiency virus. 7. Explain the application of principles of aseptic technique.
<p>8. Drugs for the cardiovascular system.</p>	<ol style="list-style-type: none"> 1. Describe the actions and give examples of the following drug groups: <ol style="list-style-type: none"> a. Vasoconstrictors b. Vasodilators c. Antihypertensives d. Heart stimulant/cardiac glycerides e. Arrhythmic medications (antiarrhythmics) f. Anticoagulants, coagulants g. Hematinics h. Thrombolytics 2. State the difference between a maintenance dose and an initial dose. 3. State the proper procedure for administering oral and sublingual medications to patients with cardiovascular disorders. 4. State the special procedure for administering: <ol style="list-style-type: none"> a. Vasoconstrictors b. Vasodilators c. Antihypertensives d. Digitalis e. Antiarrhythmics f. Anticoagulants, coagulants g. Hematinics
<p>9. Drugs for the respiratory system.</p>	<ol style="list-style-type: none"> 1. Describe the actions and give examples of the following drug groups: <ol style="list-style-type: none"> a. Antitussives

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<p>10. Drugs for the nervous and sensory systems.</p>	<ul style="list-style-type: none"> b. Expectorants c. Decongestants d. Antihistamines e. Bronchodilators <ol style="list-style-type: none"> 2. Recognize the names of physical and mechanical techniques and, devices used in therapy. 3. Explain procedures for making respiratory drugs work better. 4. Observe patients for symptoms of breathing problems. 5. Administer nose drops and paint or spray mucous membranes, using correct procedures. <ol style="list-style-type: none"> 1. Describe the actions and give examples of the following drug groups: <ul style="list-style-type: none"> a. Cerebral stimulants b. Respiratory stimulants c. Antidepressants d. Analgesics e. Sedatives/hypnotics f. Anticonvulsants g. Antipsychotics h. Antianxiety drugs i. Antiparkinsonian drugs 2. Tell whether each drug group above is a type of central nervous system (CNS) stimulant or CNS depressant. 3. State the general instructions for administering: <ul style="list-style-type: none"> a. Sedative/hypnotics b. Pain medications c. Long-term medications d. Stimulants e. Emergency drugs f. Eye and ear medications 4. Identify drugs that are often involved in drug abuse. 5. Describe proper procedures for instilling eye drops, eye ointments,

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<p>11. Drugs for the gastrointestinal system.</p>	<p>and eardrops.</p> <ol style="list-style-type: none"> 1. Describe the actions and give examples of the following drug groups: <ol style="list-style-type: none"> a. Antacids b. Digestants c. Antiflatulents d. Emetics e. Antiemetics f. Anticholinergics g. Antispasmodics h. Antidiarrheals i. Cathartics (laxatives and purgatives) j. Antiparasitics k. Anorexiant. 2. State three important things to remember when giving medications for the gastrointestinal system. 3. Describe and follow proper procedure for inserting rectal suppositories. 4. Describe and follow proper procedure for giving medications through a nasogastric or gastrostomy tube.
<p>12. Drugs for the urinary system and fluid balance.</p>	<ol style="list-style-type: none"> 1 Describe the actions and give examples of the following drug groups: <ol style="list-style-type: none"> a. Urinary antiseptics b. Diuretics c. Replacement electrolytes -: d. Fluids 2. Describe the nursing care that goes with giving diuretics. 3. State the purposes of a urinary catheter. 4. State proper procedure for administering medications through an indwelling catheter.
<p>13. Drugs for the endocrine system.</p>	<ol style="list-style-type: none"> 1. State the action of each of these hormones and hormone like drugs:

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<p>14. Drugs for the reproductive system.</p>	<ul style="list-style-type: none"> a. Somatotrophic hormone b. Thyroxine c. Parathormone d. Corticosteroids e. Epinephrine and norepinephrine f. Insulin g. Adrenocorticotrophic hormone h. Antidiuretic hormone <ol style="list-style-type: none"> 2. List the kinds of insulin available for treatment of diabetes treatment and tell how they work. 3. Recognize the symptoms of insulin underdose and overdose and tell how they are treated. 4. List at least three uses of corticosteroids. 5. Name five possible side effects of long-term corticosteroid therapy. <ol style="list-style-type: none"> 1. Describe the actions of: <ul style="list-style-type: none"> a. Gonadotropins b. Oxytocin c. Prolactin 2. Recognize descriptions of major disorders that affect the reproductive system. 3. List the main uses of sex hormones in drug therapy. 4. State the major side effects of sex hormone therapy.
<p>15. Drugs for anesthesia.</p>	<ol style="list-style-type: none"> 1. Name three classifications of preanesthetics. 2. Explain the signs and stages of general anesthesia. 3. Give examples of neuromuscular blocking agents 4. Explain the difference between intravenous infusion fluids, irrigating fluids, and blood volume expanders. 5. Describe the signs and stages of general anesthesia. 6. List inhalational, intravenous, and local anesthetics. 7. State the difference between opioid analgesic anesthetics and opioid

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	antagonists. 8. Discuss some of the most important drugs and their effects on the surgical patient.