HIGHLAND COMMUNITY COLLEGE

Syllabus

NUR203 Certified Medication Aide Update
1 Credit Hours (Lecture or Lab)
Prerequisites: NUR202
C&I Revision Date: 9/11/25

Department:

Allied Health

Course Description:

This course is based on the Kansas Department for Aging and Disability Services (KDADS) Medication Aide Curriculum per Kansas Administrative Regulations (K.A.R.) 26-50-38a "Each person who has been certified as a medication aide as specified in K.A.R. 26- 50-30 and wants to maintain that person's certification shall complete a 10-hour continuing education course every two years before that person's certification expires." This course designed to provide the 10 hours of continuing education required for the Certified Medical Aides (CMA) to maintain certification.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Legal, Ethical and Current Practice
    a. Understand role and responsibility of a medication aide.
    b. Identify statutes and regulations of a medication aide.
    c. Explain the Ethical Stands of Conduct of a medication aide.
2. Communication
    a. Describe the importance of verbal and nonverbal communication.
    b. Describe the communication process.
    c. Demonstrate sensitivity to residents' verbal and nonverbal communications, changes in thought process, mood and behavior and identify important elements of an effective helping relationship.
    d. Identify barriers to effective communication.
    e. Participate in the nursing process.
    f. Report significant changes in resident's condition and in a timely manner.
    g. Share information objectively and subjectively in a professional manner.
    h. Recognized when, where and how to refer resident to other professionals.
    i. Use techniques which support the care plan including behavior modification, therapeutic communication, reality orientation and validation.
    j. Relate effectively with other team members.
3. Infection Control
    a. Review the principles of standard precautions.
    b. Know that facilities will have specific policies relating to infection control.
    c. Identify proper hand hygiene techniques.
    d. Identify additional methods of infection control.
4. Safety and Medication Administration – Pharmacodynamics
    a. Define pharmacokinetics.
    b. Define medication action.
    c. Explain the relationship between medications and drugs.
    d. Know the four basic body processes that affect medication action.

    e. Know factors which affect medication action and be able to identify the effects of each factor.
    f. Know medication effects. Demonstrate ability to differentiate between therapeutic effects and side effects; and local effects and systemic effects, and to recognize descriptions of major adverse reactions, including the meanings for the terms which describe unwanted medication reactions.
    g. Define medication interactions and differentiate between synergism and antagonism.
    h. Know other medication-related disorders.
    i. Explain the difference between psychological and physical medication dependence.
    j. Define drug abuse and name classifications of drugs that are commonly abused.
5. Safety and Drug Administration – Forms of Medications
    a. Identify forms in which medications are available and implications for effective use.
    b. List and describe the routes for administering medications.
    c. Explain who is qualified to give medications by the parenteral route.
6. Safety and Drug Administration – Common Medical Abbreviations
    a. Give the meanings of, and use common medical abbreviations for medication forms, route, administration times and general medical abbreviations.
7. Safety and Drug Administration – Mathematics, Weights and Measures
    a. Identify what professionals are responsible for calculation drug dosages.
    b. Be aware that there are different systems of measurement and identify the importance of correct dose measurement.
    c. Correctly read and write lower case Roman numerals ½ through 30.
    d. Define the prefixes used in the Metric system and be able to add and subtract decimals.
    e. Describe the disadvantages of the Household system of measurement in medication use.
    f. List two drugs that are measure in units.
    g. Convert grams to milligrams and vice versa, and list some of the most common equivalents among the different systems of measurement.
    h. Add fractions and decimals.
    i. Understand the table of measurements.
8. Safety and Drug Administration – Drug Standards and Names
    a. Explain what is meant by drug standards and tell how they are determined.
    b. List and differentiate between two types of names by which drugs are known.
9. Safety and Medication Administration – Drug Resources Information
    a. State the importance of knowing how to find current information on medications.
    b. Demonstrate the ability to find and use drug references and other resources to obtain drug information.
    c. Be aware of how quickly information on medications changes.
10. Drugs and Body Systems – Cardiovascular System
    a. Identify the basic structures and functions of the cardiovascular system.
    b. Identify the names of instruments used to measure blood pressure and to record the heart rate and be familiar with current practice regarding the definitions of pre-hypertension, hypertension, and hypotension.
    c. Identify the main components of blood.
    d. State the functions of the lymphatic system.
    e. State possible effects of aging on the cardiovascular system.
    f. Explain the major cardiovascular disorders and related medications.
    g. Identify disease of blood and lymph.
    h. Be able to give a review of medications which may be used for cardiovascular and blood disorders, including methods of administration, nursing care and side effects.

i. Be able to summarize cardiovascular medications.

11. Drugs and Body Systems – Urinary System
    a. Identify basic structures and functions of the urinary system.
    b. State the three functions of the urinary system.
    c. Describe disorders of the kidneys and urinary tract. Be able to define key terms, define symptoms and describe related medications and treatments, nursing care and side effects.
    d. Identify medications used to treat urinary tract disorders and nursing measures to promote effectiveness, including the following drug groups and treatments: antispasmodics, antibiotics, urinary antiseptics, urinary analgesics, diuretics, and replacement electrolytes.
12. Drugs and Body Systems – Respiratory System
    a. Identify the major structures and functions of the respiratory system.
    b. Describe the mechanisms of breathing and how gases are exchanged in the lungs.
    c. Describe the major respiratory disorders, listing common signs and symptoms.
    d. Be familiar with the correct medical terms associated with respiratory disorders.
    e. Describe the actions; give examples, nursing care and side effects for these drug groups: antihistamines, decongestants, and bronchodilators.
    f. Explain and demonstrate how to administer medication through a meter dose inhaler and using a nasal inhaler.
13. Drugs and Body Systems – Digestive System
    a. Identify the basic structures and functions of the digestive (gastrointestinal) system, including the five main functions. Be able to name the major parts of the GI system and tell what they do.
    b. Define the symptoms of gastrointestinal disorders.
    c. Describe the major gastrointestinal disorders for which medications are prescribed.
    d. Describe the actions; give examples, nursing care and side effects for these drug groups: antacids, antisecretory drugs, digestants, antiflatulents, emetics, antiemetics, anticholinergics, antispasmodics, diarrhea medications (Discuss non-drug means of controlling diarrhea and for preventing constipation), cathartics (laxatives and purgatives), and antiparasitics.
    e. Identify principles to remember in administering medications for the digestive system safely.
14. Drugs and Body Systems – Nervous System
    a. Identify the two major divisions of the nervous system and describe the major structures and functions of the nervous system.
    b. Describe disorders of the nervous system including related medications and treatments, nursing care and side effects.
    c. Describe the actions and give examples of CNS stimulants and depressants. Note the reasons that these drugs are often abused.
    d. Be familiar with analgesic pain medications for mild and moderate pain, as well as common side effects.
    e. Be thoroughly familiar with considerations regarding pain management in the elderly. Include the certified medication aide's response to reports of pain by residents, and how to achieve effective pain control.
    f. Describe the actions and give examples of psychotropic drugs, nursing care and side effects. Understand the two types of depression. Understand issues surrounding the use of placebos in adult care facilities.
    g. List medications which may result in transient or permanent drug-induced movement disorders.
15. Drugs and Body Systems – Drugs Affecting the Special Senses: Eye
    a. Identify major structures and functions of the eye.

b. Describe the mechanisms of sight.
c. Describe the effects of aging on the structures of vision.
d. Identify general symptoms of eye disorders.
e. Identify terms and diseases, related medications and nursing care and side effects of major disorders of the eye. Note actions, uses and names for eye lubricants.
f. List Terminology used to identify how to administer eye medications. Be familiar with general nursing care and special considerations regarding eye medications.
g. Describe the proper procedures for administering eye drops and ointments.

16. Drugs and Body Systems – Drugs Affecting the Special Senses: Ear
    a. Identify major structures and functions of the ear.
    b. Describe the mechanisms of hearing.
    c. Describe the effects of aging on auditory structures and functions.
    d. Identify general symptoms of disorders of the ear for which medications are given.
    e. Identify terms and diseases, related medications and nursing care and side effects of major disorders of the ear.
    f. Be familiar with general considerations regarding ear medications.
    g. Describe the methods/steps/proper procedure for correctly administering ear medication.
17. Drugs and Body Systems – Musculoskeletal System
    a. Identify the major structures and functions of the musculoskeletal system.
    b. Identify the major disorders that affect the musculoskeletal system, especially associated with aging.
    c. Discuss malfunctions of bone marrow and their effects on the blood.
    d. Name related medications, their actions, uses, side effects and implications in treatment of musculoskeletal disorders.
    e. Describe the usual care of residents with musculoskeletal disorders, especially as it relates to medication administration.
18. Drugs and Body Systems – Endocrine System
    a. Identify the major structures, their functions, and the regulatory mechanisms of the endocrine system.
    b. Identify the major disorders that affect the endocrine system. Tell why disorders may be prefixed with “hypo” or “hyper”. Give examples of disorders of the endocrine system named in this manner.
    c. Name related medications, their actions, uses and implications in the treatment of endocrine disorders. Identify complementary/alternative therapies.
    d. Describe nursing care and implications with regard to therapies and medications used to treat endocrine system disorders.
    e. Know the facts about Diabetic Acidosis and Hypoglycemia.
    f. Throughout this unit, using information from the unit content and the appendices, give particular attention to diabetes and related therapies and treatments:
        i. Describe how the body malfunctions in diabetes and what changes occur in the urine of an untreated diabetic.
        ii. State what factors influence the insulin needs of a resident who has diabetes.
        iii. Identify diet, activity, and medication as treatments of diabetes.
        iv. List the kinds of insulin available for treatment of diabetes mellitus.
        v. Recognize the symptoms of hyperglycemia and hypoglycemia and explain how they are treated.
        vi. Give examples of oral hypoglycemics used for diabetes treatment and explain how they work.
        vii. State names, action and side effects of oral hypoglycemia agents.
        viii. Explain why residents with diabetes must have frequent blood tests.

19. Drugs and Body Systems – Reproductive System
    a. Identify the female reproductive structures and functions.
    b. Identify the male reproductive structures and functions.
    c. Name the hormones produced by the male and female gonads and tell what they do. Describe the actions of gonatropins, oxytocin, and prolactin.
    d. Recognize descriptions of the major disorders that affect the reproductive system.
    e. List the main uses of hormones in drug therapy.
20. Drugs and Body Systems – Integumentary System
    a. Identify three layers of skin, their location, structure, and other structures located within the skin.
    b. Describe the major functions of the skin.
    c. Identify common changes in the integumentary system associated with aging.
    d. Describe major disorders affecting the skin. Identify related medications, nursing care and side effects.
    e. Identify general issues for skin and skin care, specific types of dressing and methods of administering skin medications.
    f. Identify ways to reduce itching and scratching.
21. Drugs and Body Systems – Anti-Infective Agents
    a. Understand the nature of infection and identify causes, transmission, and control measures.
    b. Identify signs and symptoms of infection and explain why the elderly are at increased risk.
    c. Name topical anti-infective agents and actions.
    d. Identify terms describing systemic anti-infective agents.
    e. Recognize the common drugs, nursing care and side effects in following groups: penicillins, cephalosporins, sulfonamides, fluoroquinolones, tetracycline, aminoglycosides, macrolide, lincomycin and clindamycin, vancomycin, metronidazole, antiviral, antifungal.
22. Drugs and Body Systems – Vitamins, Minerals and Herbs
    a. Be familiar with the Dietary Guidelines for Americans.
    b. Identify the meaning of RDA.
    c. Discuss the role of vitamins. Know the difference between Fat-Soluble and Water-Soluble vitamins.
    d. Discuss the role of minerals. Know the difference between macrominerals and microminerals.
    e. Define and identify electrolytes.
    f. Identify nursing care and side effects regarding vitamins and minerals and their relationship to medications.
    g. Discuss the role of herbs with regard to medications.
    h. From the appendices, take special note of recommendations for iron, calcium, and potassium.
    i. Note which herbs are unsafe to use.
    j. Be familiar with fat-soluble vitamins.
    k. Be familiar with water-soluble vitamins.
    l. Be familiar with macrominerals.
    m. Be familiar with microminerals.
23. Administration of Medications – Preparing to Administer Medications
    a. Identify ways in which medications are supplied to the nursing home.
    b. Describe unit dose and multiple dose packaging of medications.
    c. Explain proper storage of medications, biologicals, equipment and supplies in the medication room, nurses' room or work area, medication cart and resident's bedroom.

d. Know how to dispose of unused medications.
e. Know who may receive medication orders and how they are received and recorded. Know how to check medication orders. Understand automatic stop orders, standing orders, PRN and STAT orders.
f. Explain the responsibility of the medication aide is questioning medication orders, including what to do if the order is not clear or legible.
g. Discuss methods for ordering medications from the pharmacy.
h. Explain how a Kardex, medication cards, and a Medication Administration Record (MAR) are used to communicate medication orders. Demonstrate how to document administration of a medication.
i. Know general guidelines for medication preparation. Throughout unit, identify potential sources for error.
j. Identify and demonstrate specific techniques to administer medications using the "Seven Rights" of medication administration including techniques for specific forms of medications.
k. Know techniques specific to liquid, crushed and controlled medications.

24. Administration of Medications – Recording Medication Administration
    a. Identify general guidelines to follow in recording medication administration.
    b. Describe the content of a resident's clinical record.
    c. Accurately document activities related to administration of medications and treatment. Review documentation using MAR.
    d. Describe the principles of clinical documentation. Demonstrate the medication aide's responsibility to document in progress notes.
    e. Identify principles of documentation.
    f. Identify appropriate response and documentation for the specific situations listed.

Course Content:

A. Legal, Ethical and Current Practice
B. Communication
C. Infection Control
D. Safety and Drug Administration- Pharmacodynamics
E. Safety and Drug Administration-Forms in Medications
F. Safety and Drug Administration-Common Medical Abbreviations
G. Safety and Drug Administration-Mathematics, Weights and Measures
H. Safety and Drug Administration-Drug Standards and Names
I. Safety and Drug Administration-Resources for Drug/Medication Information
J. Drugs and Body Systems-Cardiovascular
K. Drugs and Body Systems-Urinary System
L. Drugs and Body Systems-Respiratory System
M. Drugs and Body Systems-Digestive System
N. Drugs and Body Systems-Nervous System
O. Drugs and Body Systems-Drugs Affecting the Special Senses: Eye
P. Drugs and Body Systems-Drugs Affecting the Special Senses: Ear
Q. Drugs and Body Systems-Musculoskeletal System
R. Drugs and Body Systems-Endocrine System
S. Drugs and Body Systems-Reproductive System
T. Drugs and Body Systems-Integumentary System
U. Drugs and Body Systems-Anti-Infective Agents
V. Drugs and Body Systems-Vitamins, Minerals and Herbs
W. Administration of Medications-Preparing to Administer Medications
X. Administration of Medications- Recording, Medication Administration

Y. Administration of Medications-Administering Medications to the Elderly
Z. Kansas Adult Care Home Regulations Course Content (Use outline format I., A., 1., a., etc.)

Learning Assessments:

Competencies may be evaluated by multiple measures, including class participation, homework assignments, practice of skills, performance of skills in the clinical setting, quizzes, and tests.

Instructional Materials:

KDHE Kansas Certified Medication Aide Curriculum, May 2013
Kansas Adult Care Home Regulations

Additional materials may be used to augment the course and provide updated medical information.

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the "Disabilities Self-Identification Form" on our Disability Services website.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.

A Note on Harassment, Discrimination and Sexual Misconduct

Highland Community College seeks to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX, and College policy prohibit harassment, discrimination and sexual misconduct. Highland Community College encourages anyone experiencing harassment, discrimination or sexual misconduct to talk to report to the Vice President for Student Services, the Human Resources Director or complete an online report about what happened so that they can get the support they need and Highland Community College can respond appropriately.

There are both confidential and non-confidential resources and reporting options available to you. Highland Community College is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, please review our Equity Grievance Policy.