APPROVED BY THE BOARD September 21, 2005

MEDICATION ADMINISTRATION
FOR
PILOT STUDY MEDICATION TECHNICIANS
SYLLABUS

COURSE OVERVIEW:
This course provides basic background information and routine procedures that are essential for the safe administration of select medications by experienced certified nursing assistants in a long term care facility. Content includes basic principles of medication administration, simple calculations, and categories of medications. Successful completion of the course and a "pass" on both the written and manual skills exam administered by the Arizona State Board of Nursing (AZBN) will meet the qualifications to become a pilot study medication technician (PSMT) and administer medications utilizing Arizona State Board of Nursing protocols at a selected long-term care facility under the supervision of a licensed nurse.

Admission Requirements:
Admission into the training is limited to currently certified nursing assistants (CNA) who are at least 18 years old and who have:

- Worked at a pilot long-term care facility for a minimum of 6 months as a full time employee in a CNA position;
- CPR certification;
- Earned a high school diploma or GED;
- The ability to succeed in the course, as determined by the Director of Nursing of the facility, utilizing the criteria below. The CNA:
    - Has a good attendance and employment record;
    - Demonstrates excellence and efficiency in performance of CNA skills;
    - Demonstrates ability to calculate simple dosages;
    - Demonstrates ability to read and comprehend a nursing assistant textbook;
    - Requires minimal supervision;
    - Works as a team member;
    - Verbalizes the desire to attend the program and carry out the duties of the medication technician;
    - Demonstrates respect for the process of medication administration;
    - Exhibits organizational skills in determining priorities in nursing assistant care;
    - Describes ability to manage time and resources to attend classes, study, and fulfill other obligations.

Length of the Program:

- The program shall consist of a minimum of 45 hours of didactic study, 15 hours of skills lab practice and 40 hours of supervised clinical following the Arizona State Board of Nursing approved curriculum plan.
- The program shall provide15 hours of skills lab experience for the purpose of student practice and competency testing before a student is allowed to administer

medication to a resident. Medication administration practice in the skills lab is included in the course syllabus and integrated into the didactic course content. Students must pass skills lab evaluation utilizing Board-approved criteria before administration of medications to residents.

- There shall be a minimum of 40 hours of clinical practice utilizing the guidelines of progressive clinical practice and principles of supervision as detailed below

Clinical Practice

Progressive clinical practice of 40 hours to include:

1. One-to-one instructor observed medication passes until the instructor determines that the student is safe to progress, starting with a minimum of 5 residents progressing to 10 residents over a period of 3 days for 4 hours per day (12 hours). The instructor will observe, evaluate, and record student performance for each resident medication pass using a Board-approved checklist. Students shall perform 30 medication administrations without coaching or missing critical elements to progress.
2. One-to-three instructor-to-student ratio for a minimum of 12 hours. The student may administer medications to10-15 residents. The instructor will utilize a Board-approved checklist to record student performance. The instructor shall observe, evaluate, and record performance of medications administered at a specific time to every 3 residents. Students shall perform 15 documented medication administrations without missing critical elements or coaching to progress. A licensed nurse (RN or LPN) shall check all medications for correct drug, time and dosage before administration and review all medication documentation.
3. Upon successful completion of the above, the student may progress to medication passes under the general supervision of the instructor for a minimum of 16 hours to the number of residents determined by the facility to consist of a normal assignment for a medication technician. The instructor-to-student ratio shall be 1:5. The instructor will utilize a Board-approved checklist to record student performance. The instructor shall observe, evaluate, and record performance of medications administered at a specific time to every 5 residents. Students shall perform 15 documented medication administrations without coaching or missing critical elements to progress. A licensed nurse (RN or PN) shall check all medications before administration for correct drug, dosage, and time and review all medication administration documentation.
4. Following successful course completion and prior to taking and passing the Board administered competency exam, a PSMT course graduate may continue administer medications to selected residents under the direct supervision of the instructor consistent with the principles of supervision below.

Principles of Supervision

1. Student supervision is always conducted by the instructor throughout the course and until the student passes the Board administered competency examination. The instructor shall engage in no other duties during the period of supervision.
2. The student will progress in passing medications to progressively larger groups of residents as the student demonstrates consistent, safe, efficient medication administration according to Board-approved criteria.
3. A licensed nurse (RN or PN) shall review all medication documentation.

4. All medications will be checked for right time, dose, and drug before administration;
5. All critical elements in the Board approved criteria must be performed by the student for all medication passes without coaching or cueing from the instructor for the student to progress from lab to clinical, to a larger number of residents, or to general supervision.
6. The instructor may require more practice than the minimum but in no instances shall less practice be required.

Competency Testing

- CNAs who successfully complete the PSMT course shall be eligible to take a Board administered competency exam
- The Board shall develop a competency exam based on established principles of testing and curriculum content with both a written and manual skill portion and establish a passing standard.
- A board representative shall administer the competency examination within 30 days of course completion. During the period between course completion and examination, the graduate may administer medications only under the direct supervision of the instructor.
- Candidates who a fail a portion of the competency exam on the first attempt, shall be offered one re-take of the failed portion within 30 days. Candidates who fail two times or both portions of the exam will be withdrawn from the PSMT program.

COURSE GOALS:

Upon successful completion of the course, the student will be able to:

1. Explain the role of the pilot study medication technician in Arizona including allowable acts, conditions, and restrictions.
2. Discuss principles, terminology, laws, and drug references as they apply to administration of medications.
3. Explain principles of medication action.
4. Explain principles of medication administration and nursing care considerations for geriatric clients receiving medication.
5. Demonstrate application of mathematical concepts when preparing medications for administration.
6. Describe measures to promote safe medication administration in health care facilities.
7. Discuss medication properties, uses, adverse effects, administration, and nursing assistant care of residents receiving the following types of medications:
    a. Vitamins, minerals, and herbs
    b. Antimicrobials
    c. Eye and ear medications
    d. Skin medications
    e. Cardiovascular medications
    f. Respiratory medications
    g. Gastrointestinal medications

h. Urinary system medications and medications to attain fluid balance
i. Endocrine medications
j. Musculoskeletal medications
k. Nervous system/sensory system medications
l. Psychotropic medications

CLINICAL COMPETENCIES

A. Utilizing the 5 rights of medication administration, administer the following medications to stable residents when delegated and supervised by a licensed nurse:

1. Regularly scheduled oral, topical, nasal, and rectal medications.
2. PRN or "as needed" medications for bowel care or over-the-counter analgesics
3. Regularly scheduled ear and eye medications

B. Demonstrate application of the principles of asepsis when administering medications.
C. Follow principles of delegation when accepting delegation of medication administration.
D. Accurately document medication administration.
E. Perform nursing assistant care associated with medications administered to residents.
F. Report any changes in resident condition to the delegating nurse.
G. Adhere to Arizona State Board of Nursing Protocols during medication administration.
H. Promote resident rights during medication administration.

RESOURCES:

Gauwitz, D. (2005). Administering Medications: Pharmacology for Health Careers. Boston: McGraw-Hill.

Nursing Drug Manual

Delegation Folder

Nursing Assistant Text

ASBN Documents: Nurse Practice Act, Protocols, Research Scope of Work, HB2256

COURSE POLICIES:

ATTENDANCE:

- The PCMT is a fast track course. Students must attend all classes to understand the material presented and function at a quality level in the health care setting.
- Students are required to complete the minimum hours of the course (45 didactic, 15 lab, 40 clinical practice)

PASSING STANDARDS:

Didactic/laboratory:

- There is not a single course grade for the training. Each of the following components must be completed satisfactorily for the student to pass the didactic/lab portion of the course:

- **Four unit tests:** the student must earn a minimum 75% on each unit test. If a student fails to achieve 75% on a test, an alternate form of the exam may be given for one test only.
- **Dosage calculation test**: the student must earn 100% on the dosage calculation test. A calculator may be used. Two retakes using alternate forms of the dosage calculation test are permitted.
- **Comprehensive Course Test**: the student must earn a minimum of 80% on the comprehensive course test. If a student fails to achieve 80% and has passed all unit tests on the first attempt, the student may re-take an alternate form of the comprehensive course test.
- **Final skills laboratory**: the final skills laboratory exam is Pass/Fail. The student must demonstrate all critical elements of selected medication administration to receive a grade of "pass." If each competency is not met, the student will receive a grade of "fail."

- The student must successfully complete the didactic and skills laboratory portion of the course as described above in order to proceed to the clinical practice portion of the course.

Clinical practice:

- The student must complete the clinical practice within 45 days of completing the didactic and skills laboratory
- The student will receive a "pass" or "fail" grade for the clinical practicum; each competency must be met for the student to pass.
- The instructor will place an evaluation form in the students file indicating that the student has met all competencies for each of the 3 levels of clinical practice. The competencies of the previous level must be met to proceed to the next level.

COURSE COMPLETION:

- The student successfully meets the passing standards of the didactic/laboratory and
- The student successfully completes the clinical practicum.
- Upon successful course completion, the instructor will award a certificate to each successful trainee, which includes the trainee's name, CNA certificate number, date of successful course completion, sponsoring institution, and instructor's signature.
- The training facility will send copies of each student's certificate of completion to the Arizona State Board of Nursing.

RECORD MAINTENANCE:

- Course materials and student records will be retained by the training institution for 3 years.
- Course materials include the following:
  - Course syllabus
  - Course schedule
  - All tests and comprehensive exams
  - Student end-of-course evaluations
- Records for each student include the following:

- Student name, date of birth, and CNA certificate number;
- Attendance records including total hours for class, lab, and practicum**;**
- All scores on tests and quizzes;
- Skills check lists from clinical practice;
- Instructor completed competency evaluation forms for each level of clinical practice;
- Copy certificate of course completion.

GRIEVANCE:
A student may report a grievance related to the training through the established grievance process of the training institution.

CONDUCT POLICY: The student is expected to conduct him/herself in an ethical and professional manner. A student who commits academic dishonesty and/or acts in an unprofessional manner will be removed from the PSMT training program.

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Unit Objectives/Topical Outline/Assignments:

Goal 1. Explain the role of the pilot study medication technician in Arizona including allowable acts, conditions, and restrictions.

Objectives	Content	Learning Activities	Time for Unit
A. Discuss the legislation that led to the role of the pilot study medication technician.	A. Legislation HB 2256	Read: AZBN Protocols Nurse Practice Act—Rules/ Article 8	Didactic: 1 hours
B. Explain the delegation process and the information a PSMT would need to accept delegation.	B. Process of delegation/handouts	Legislation HB 2256; syllabus A-D Discussion	
C. Describe the Protocols under which a medication technician can administer drugs in Arizona	C. Protocols		
D. Describe Board of Nursing role in the project and research components.	D. Research components/testing		

Goal 2. Discuss principles, terminology, laws, and drug references as they apply to administration of medications

Objective	Content	Learning Activity	Time for unit
A. Define key terms	A. Key terms:	Read: pp 1-7, 8-13 Workbook: All	Didactic: 1.5 hours
B. List drug sources and uses	B. Sources and uses of drugs		
C. Differentiate between different names for the same drug	C. Drugs known by different names: chemical, generic and proprietary (trade) name	B-D. Practice looking up a drug in nursing drug books, and on	

D. Demonstrate use of drug references E. Discuss drug legislation and how laws protect the public F. Apply legal, ethical, and caring behaviors when administering medications	D. Information contained in drug references and types of drug references E. Major drug laws: 1. Food and Drug Act 2. Controlled Substance Act 3. Agencies that enforce drug laws F. Legal-ethical Resident rights, experimental drugs, placebos, caring principles—empathy, listening, hope, placebo effect	the internet and discuss the information available E. Demonstrate how the facility complies with the controlled substance act—locked narcotics, wastage etc.	

Goal 3. Explain principles of medication action

Objective	**Content**	**Learning Activity**	**Time for unit**
Objective A. Define key terms B. Describe the processes of drug absorption, distribution, metabolism, and excretion and resident education/care that will support the desired effects of drugs C. List and describe at least 10 factors affecting drug action.	Content A. Key terms p. 18 B. Processes of absorption, distribution, metabolism, and excretion and nursing assistant measures that support appropriate drug action C. Factors affecting drug action: age, size, diet, gender (male/female), genetics, diseases, psychological factors,	Learning Activity Read pp. 18-29 Workbook: All items A. Play “key term” jeopardy where the definition is given and the participant supplies the correct term B-F Lecture; encourage discussion--ask students to: List personal factors that may affect drug actions; describe an adverse reaction from their own experience; Have they ever experienced tolerance, etc	Didactic: 2 hour

	routes of administration, time of administration, drug taking history, environmental effects.		
D. Distinguish between therapeutic effects and side effects of a drug	D. Therapeutic/side effects of drugs Local and systemic action		
E. Describe types of adverse reactions to drugs and nursing assistant responsibilities for each type of adverse reaction.	E. Adverse reactions; signs and symptoms; nurse assistant responsibilities for: 1. Drug allergy 2. Tolerance 3. Cumulative Effect 4. Overdose and Toxicity 5. Drug interactions 6. Other drug related		
F. Differentiate between drug dependence and abuse in residents and staff.	F. Drug dependence and Abuse; nursing assistant responsibilities	F. Discuss risk for abuse among health care professionals	

Goal 4. **Explain principles of medication administration and nursing care considerations for geriatric clients receiving medication.**

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Recall the effects of aging on body systems	A. Effects of aging on body systems	Read pp. 413-422 Workbook: All items	Didactic: 1 hours
B. Discuss pharmacokinetics in the aged	B. Pharmacokinetics in the aged	A-C Lecture/discussion with examples Observation of medication administration	
C. Administer medications to elderly residents applying principles of safe medication administration, resident rights, and	C. Administration of medications to elderly residents: resident rights, safety principles, caring behaviors, difficult swallowing		

knowledge of aging changes that may affect ability to take medications.	(thickening)		

Unit test #1

Goal 5. Demonstrate application of mathematical concepts when preparing medications for administration

Objective	Content	Learning Activity	Time for unit
A. Define key terms B. Recall common mathematical operations C. Recognize different systems of measurement and when a licensed nurse needs to be involved. D. Write and define units of measurement for metric and household systems E. State common equivalents among measurement systems and use a conversion table to convert between systems F. Calculate the number of tablets or capsules to give when the available dose differs from the ordered dose. G. Calculate the amount of liquid medication to pour when the dose is ordered in units of mass.	A. Key terms p. 36 B. Review of: 1. Fractions 2. Decimals C/D. Systems of measurement: 1. Metric 2. Household 3. Temperature scales 4. Apothecary (briefly) E-H. 1. Equivalencies metric/household 2. Dosage calculation for oral medications 3. Dosage calculations with conversions—licensed nurse needed to do initial calculation	Read all of chapter except unit on apothecary (go over briefly in class) Workbook: see lab practice A. Key term jeopardy B. Provide safe and unsafe examples of calculations Lab Practice: Use actual examples from your facility and workbook in class; students should complete workbook questions through 120 except the apothecary problems—a calculator may be used.	4 hours theory; 1 hour lab practice with examples (It is recommended that this content be divided into 2 days)

H. Verify a dosage calculation using conversions from one system to another.			

Dosage Calculation Test

Goal 6: **Describe measures to promote safe medication administration in health care facilities.**

Objective	**Content**	**Learning Activity**	**Time for unit**
Objective A. Identify key terms B. Name common abbreviations associated with medication administration. C. List medication forms D. Describe routes for administering medications E. Recognize the routes of medication that may be administered by the PSMT F. Document time using international time (military time) G. Describe the licensed nurses responsibility to check the components of a medication order.	Content A. Key terms p. 62 B. Accepted abbreviations (supplemental JACHO recommended) C. Forms of medication: 1. Liquids 2. Solutions 3. Suspensions 4. Solids/Semisolids D. Routes of administration: Oral routes: sublingual, buccal, oral Topical Rectal Eye drops Eardrops E. Inhalation/Parenteral, sublingual and PRN medications—only licensed nurse gives F. International time G. Medication orders checked by nurse: 1. Order sheet 2. Prescription components a. Name of drug	Learning Activities Reading: All sections except vaginal, inhalation, parenteral and sublingual Workbook: Substitute appropriate abbreviations from JACHO list (p 99 #22-36) Do workbook up to and including #107 with substitution of appropriate abbreviations. A. Key term quiz B. Supplemental JACHO abbreviations--quiz C-M. Lecture Discussion/Demonstration Practice procedures: Medication set up—Liquid/Tablet Documentation Incident report	Didactic 5 hours Lab practice 3 hours

	b. Dose c. Route d. Time/frequency e. Prescriber signature 3. Types of drug orders; routine, standing, PRN, stat 4. Questioning an order		
H. Describe the ordering, packaging, storage and disposal of drugs.	H. Ordering, packaging, storage, and disposal of drugs		
I. Describe documentation used to communicate medication orders	I. Documentation: Medication Record Self-terminating Controlled substances		
J. Pour medications according to accepted procedure	J. Pouring medications		
K. Explain the 5 rights of medication administration	K. The 5 rights of medication administration: Drug, dose, patient, route time		
L. Document medication administration	L. Charting medications MAR, principles of charting, reporting medication errors;		
M. Report and record observations.	M. Other types of observations that require recording and reporting		

Goal 7: Discuss medication properties, uses, adverse effects, administration of, education, and nursing assistant care of residents receiving the following types of medications:

a. Vitamins, minerals, and herbs

Objectives	Content	Learning Activities	Time for Unit

A. Identify Key Terms B. Identify fat soluble and water soluble vitamins, macrominerals, and microminerals C. List one function of each vitamin or mineral D. Recognize the dangers of elevated or lowered amounts of vitamins and minerals E. Discuss common herbal supplements, their uses, and the potential dangers.	A. Key terms p.108 B. Vitamins and minerals 1. RDAs/Food sources 2. Fat-soluble vitamins (A, D, E, and K) 3. Water soluble vitamins 5. Macro and Microminerals C. Functions of vitamins and minerals D. Elevations and lowered levels and effect on health E. Herbs and unsafe herbs	Read: 107-117 Workbook: All items **Key term quiz** Emphasize key points and vitamins/minerals commonly given in the facility—do not require memorization of the charts in the chapter Relate information to their own health and intake of vitamins and diet	Didactic: 1.5 hours

b. Antimicrobials

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Identify Key Terms B. Discuss types of infection, immunity and persons at risk for infection. C. Discuss considerations when administering antibiotics. D. Differentiate major categories of antibiotics and the	A. Key terms p. 122 B. Microorganisms, the immune system, risks for infections, the geriatric resident C. Considerations when administering antibiotics MRSA, VRE, C-difficile D. Categories, nursing assistant care and administration	Read pp.122-134 Workbook: #1-34 Handout for Flagyl A. Key term jeopardy B-E. Lecture/discussion with class participation— Include pertinent information from supplemental articles from the Center for Disease Control (CDC)	Didactic: 2 hour Lab Practice: 1 hour

nursing assistant care and administration considerations associated with each type: penicillins, cephalosporins, tetracyclines, macrolides, aminoglycosides, sulfonimides, and Flagyl E. Discuss antiviral and antifungal drugs and the nursing assistant care associated with each type. F. Demonstrate administration of medications to residents with transmission-based precautions	considerations for: penicillins, cephalosporins, tetracyclines, macrolides, aminoglycosides, sulfonimides, and Flagyl (see handout) E. Nursing assistant care and administration considerations associated with antiviral and antifungal drugs (Flagyl). F. Review of standard and transmission based precautions, emphasis on considerations when administering medications.	F. Demonstration/Return demonstration of administration of medications to residents with transmission based precautions—Use materials from CDC in instructor manual instead of book for this portion	

Unit Test #2
c. Eye and Ear medications

Objectives	Content	Learning Activities	Time for Unit
A. Identify key terms B. Describe the structure, function, of the eye and medication administration considerations when administering eye medications C. Describe ear structure, function, and the effect of aging on the auditory system. D. Identify common	A. Key terms p 147 B. Structure and function of the eye; administration of eye drops/ointments; effects of aging C. Structure and function of the ear; effects of aging D. Ear drops/Eye	Read: pp147-157 Workbook: 1-32 A. Key term matching quiz B-D Lecture/discussion E. Demonstration/return demonstration of ear drops and eye medications	Didactic: 2 hour Lab Practice: 1 hour

types of ear drops and eye medications E. Demonstrate administration of eye and ear medications (drops/ointments)	medications E. Procedure for administration of eye and ear medications		

d. Skin medications

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Identify key terms B. Recall structure and function of integumentary system C. Discuss symptoms of skin disorders D. Discuss major categories of topical medications E. Identify those skin medications that should be administered by a licensed nurse. F. Identify general principles for medicating the skin	A. Key terms p 163 B. Structure and function of integumentary system C. General symptoms and specific features of common skin disorders D. Categories of topical medications: Keratolytics, protectives and astringents, antipruitics, anti-inflammatory, antiseptics, topical anesthetics, miticides, transdermal E. Transdermal patches; medications requiring a sterile dressing change; medications requiring assessment of skin condition (Require licensed nurse) F. Patient considerations; wound preparation;	Read: pp 163-175 Workbook: #1-32 A. Key term jeopardy B-F Lecture/discussion/possible grand rounds if examples of disorders can be found within facility G. Demonstration/return demonstration	Theory: 2 hours Lab practice: 1 hour

and associated nursing assistant care. G. Demonstrate application of topical medications within PSMTprotocols	applying the medication; dressings; follow-up G. Principles of topical medication administration		

e. Cardiovascular medications

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Identify key terms B. Recall structure and function of cardiovascular system C. Discuss symptoms and characteristics of cardiovascular disorders D. Identify characteristics of and nursing assistant activities associated with administration of common classifications of cardiovascular medications within PSMT protocols to administer.	A. Key terms B. Structure and function: heart, blood vessels, electrical conduction; blood pressure, pulse (use new Federal Guidelines for norms). blood, lymph, effects of aging C. Cardiovascular symptoms and disorders: CHF, Dysrhythmias, CAD, Blood vessel diseases, Shock, and anemia D. Characteristics of and nursing assistant activity associated with administration of: Diuretics, antihypertensives, calcium channel blockers, A.C.E. inhibitors, antilipemics, cardiac glycosides, antiarrhythmics,	Read: pp183-202 excluding section on blood/lymph p.193 Workbook: #1-35 A. Key term quiz B-D. Discuss/Lecture/case study E. Demonstration/return demonstration using practice procedure 9.1 substituting an antiarrhythmic (propanolol) for nitroglycerine Propanolol 10 mg p.o. qid. Add take radial pulse and blood pressure and report to nurse before administering—otherwise procedure the same a digoxin.	Didactic: 3 hours Practice: 1 hour

E. Administer oral cardiovascular drugs applying principles of safe drug administration specific to the resident and drug being administered.	anticoagulants (oral), and hemateminics E. Principles of safely administering cardiovascular medications (pulse for digoxin; pulse and blood pressure for antiarrhythmics)		

f. Respiratory medications

Objectives	**Content**	**Learning activities**	**Time for Unit**
A. Identify key terms B. Recall structure and function of the respiratory system C. Discuss symptoms of respiratory distress and common diseases of the respiratory tract D. Apply principles of safe drug administration and nursing assistant care specific to the disorder when administering oral and nasal respiratory medications.	A. Key terms p 209 B. Structure and function of the respiratory system C. Symptoms: Cough, sputum, hoarseness, wheezing, chest pain Diseases: pneumonia, emphysema, asthma, tuberculosis, upper respiratory infection (colds; strept throat) D. Principles of administering oral and nasal respiratory medications and associated nursing assistant care.	Reading: pp. 209-219 Workbook: 1-36 A. Matching quiz key terms B-C. Lecture/Discussion/case study D. Demonstration/return demonstration—nasal medications	Didactic: 2 hour Lab: 1 hour

Unit Test # 3

g. Gastrointestinal medications

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Identify key	A. Key terms	Reading: 236-258	Didactic:

terms B. Recall structure and function of the digestive system C. Identify symptoms of digestive disorders and characteristics of common disorders of the digestive tract	B. Process of digestion; Structure and function of the digestive system C. Symptoms: Nausea, vomiting, diarrhea, flatulence, eructation, constipation, pain Common disorders: constipation, tooth and gum disorders, peptic ulcer disease, hepatitis, gallbladder disorders, colitis, diverticulosis, hemorrhoids	(excluding administering medications through N/G tubes Workbook: all except 54-55 A. Key term quiz B-D. Lecture/discussion/case study	2 hours Lab: 2 hours
D. Identify common classifications and characteristics of oral and rectal medications that affect the GI system including drugs used for bowel preparation.	D. Common classifications of oral and rectal GI drugs: antacids, drugs to treat peptic ulcer, antiemetics, anticholinergics/antispasmodics, Antidiarrheals, anti-inflammatory agents, and laxatives (bowel prep.).		
E. Apply principles of drug administration and nursing assistant care including potential drug interactions when administering oral and rectal drugs that affect	E. Administering rectal medications; review of oral medications; nursing assistant care/considerations when administering GI drugs/bowel preparation and medicated enemas.	E. Demonstration of administration of rectal suppository and enema /return demonstration	

the gastrointestinal system			

h. Urinary system medications and medications to attain fluid balance

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Identify key terms B. Recall structure and function of urinary system C. Identify signs and symptoms of common disorders of the urinary system. and imbalances of body fluids, electrolytes and acid-base D. Recall principles of antibiotics and apply knowledge to treatment of urinary disorders E. Discuss properties of diuretics and oral electrolytes including administration of and associated nursing assistant care.	A. Key terms p 267 B. Review structure and function of urinary system C. 1.Common disorders of the urinary system: obstruction, infection, renal failure 2. Imbalances of fluids, electrolytes, and acid-base D. Review antibiotic properties E. Diuretic types: thiazide, potassium sparing, loop, oral potassium; nursing assistant care considerations when administering diuretics and oral potassium	Reading: pp 266-279 excluding bladder instillation Workbook: A. Key term jeopardy B-E Lecture/discussion/case studies	Didactic: 1 hours

i. Endocrine medications

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Define key terms	A. Key terms	Reading: pp 305-321	Didactic: 3

B. Identify structure and function of the endocrine glands: pituitary, thyroid, pancreas, and adrenal gland C. Discuss signs, symptoms and nursing care associated with the following endocrine disorders: diabetes mellitus, disorders of the adrenal gland, thyroid disorders D. Identify the purpose of and administer oral endocrine medications demonstrating application of nursing assistant principles: oral diabetic agents (importance of diet/accuchecks), corticosteriods, thyroid replacement drugs	B. Structure and function of the endocrine glands C. Signs, symptoms and nurse assistant care of: diabetes mellitus, adrenal disorders, thyroid disorders D. Properties and nursing assistant care associated with administration of: oral diabetic agents (diet/accuchecks), corticosteroids, thyroid replacement drugs	except administering insulin, p 319 Workbook: #1-16, 25, 27-34 A. Key term matching B-C. Lecture/discussion/ case study examples D. Demonstrate administration/return demonstration (Use oral medication check-off with common endocrine medications in your facility and scenarios)	hours Lab Practice oral endocrine medications: 1 hour

j. Musculoskeletal medications

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Define key terms B. Recall structure and function of the musculoskeletal system C. Discuss signs and symptoms, drug treatment and associated nursing assistant principals	A. Key terms p326 B. Structure and function of the musculoskeletal system: bones, joints, and muscles C. Signs and symptoms, drug treatment and associated nursing assistant care of	Read: pp. 325-336 Workbook: #1-34 A. Key term quiz B-C Lecture/discussion/Case examples D. Demonstration/return demonstration using NSAIDS prn medication order	Didactic: 2 hour Lab practice: 1 hour

for the following disorders: Physical injuries, osteoporosis, bursitis, gout, osteoarthritis, and rheumatoid arthritis D. Administer drugs for disorders of the musculoskeletal system applying principles of care of residents with musculoskeletal disorders	residents with: Physical injuries, osteoporosis, bursitis, gout, osteoarthritis, and rheumatoid arthritis D. Drug characteristics and administration principles for common drugs used for muscloskeletal disorders: NSAIDs, Tylenol, methotrexate, antihyperuricemics, muscle relaxants and calcium and other drugs to treat osteoporosis		

k. Nervous System/Sensory System Medications

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Define key terms B. Recall structure and function of the nervous and sensory systems C. Discuss characteristics of nervous system disorders, drug treatment, and associated nursing assistant care: Parkinson's disease, Myasthenia Gravis, Multiple Sclerosis, Epilepsy, and Cerebral Vascular Accident. D. Compare properties of drug	A. Key terms B. Review structure and function of the nervous and sensory system C. Nervous system disorders, drug treatment and associated nursing assistant care in the following disorders: Parkinson's disease Myasthenia Gravis, Multiple Sclerosis, Epilepsy, CVA D. Drug classification	Read: pp. 340-354 Workbook: #1-31 A. Key term jeopardy B-F Lecture/Discussion/Case Study Lab practice: Administering PRN OTC medication for pain	Lecture: 2 hour Lab practice: 1 hour

classifications that affect the nervous system: Stimulants, Depressants including analgesics, anticonvulsants, antiparkinson agents E. Apply principles of drug administration for drugs affecting the central nervous system when administering medications. F. Discuss principles of administration of medications to treat pain	properties of Stimulants, Depressants including analgesics, anticonvulsants, antiparkinson agents E. Principles of administering CNS drugs F. Pain control principles Review of observing and reporting resident pain, nursing assistant care to relieve pain, administering medications to relieve pain, reporting response to nurse		

Unit Test #4

l. Psychotropic medications

Objectives	**Content**	**Learning Activities**	**Time for Unit**
A. Define key terms B. Identify the signs and symptoms of major mental disorders: depression, psychosis, anxiety, bi-polar disorder C. Describe classifications of	A. Key terms B. Signs and symptoms of major mental disorders: depression, anxiety, psychosis, bi-polar disorder C. Psychotropic drug classifications:	Read: pp.358-369 Workbook: #1-32 A. Key term jeopardy B-C Lecture/discussion/exemplars D. Role play scenarios that incorporate refusal of medication and legal/ethical principles	Didactic: 2 hour

psychotropic drugs, their uses and associated nursing assistant activities. D. Apply legal, ethical, and nursing assistant caring behaviors when administering psychotropic drugs.	Antidepressants: tricyclic, SSRI's Anti-anxiety agents, sedatives, antipsychotics, and lithium D. Legal-ethical considerations; caring behaviors in administering psychotropic drugs		

Final Exam—1 hours (add extra questions on psychotropic medications)

Skill Check-off Exam—1 hour

Didactic Instruction: 39 hours

Tests: 6 hours (four unit tests, a dosage calculation test, and a comprehensive final)
Total 45 hours didactic

Lab hours: 14
Check-offs: 1 hour
Total Lab 15 hours
Didactic + Lab=60 hours