

CLARENDON COLLEGE

Division of Science and Health

Course Name: VNSG 1227 Essentials of Medication

Credit Hours: 2

Semester: Spring 2010

Classroom Location: 313 S Kearney, P.O. Box 968, Clarendon, Texas 79226
1601 W. Kentucky, Pampa, 79065

Instructors: Kory Dunn RN; Phyllis Norton RN, BSN

E-mail: Kory.Dunn@clarendoncollege.edu; Phyllis.Norton@clarendoncollege.edu

Office location: 313 S Kearney, P.O. Box 968, Clarendon, Texas 79226
1601 W. Kentucky, Pampa, 79065

Phone: Pampa Campus 665-8801 ext 2018, Clarendon Campus 874-3571 ext. 157

Fax: 806-874-5080 & 806-665-0444

Office Hours: as posted and by appointment

Course Description:

- General principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs. Instructions include various systems of measurement.

Statement of Purpose

VNSG 1227 Essentials of Medication partially satisfies the requirement for the vocational nursing certificate at Clarendon College.

Required Instructional Materials:

Textbook:

Joyce M. Mulholland. (2007) The Nurse, The Math, The Meds Drug Calculations Using Dimensional Analysis evolve Mosby Elsevier ISBN – 13:978-0-323-03031-1

Other Relevant Materials:

Pens, paper, pencils, calculators

Student Requirements

The learner shall:

Demonstrate accountability for her/his own nursing practice. 1B, 1C

Student Learning Outcomes:

As Provider Of Care the student will:

- Demonstrate accurate dosage calculation
- Identify the elements of accurate documentation of medication administration
- By demonstrating Knowledge of and
 - Discuss the principles of medication administration safety. 3F, 3G, 3J,
 - Demonstrate accountability for own practice by demonstrating basic nursing procedures and skills to implement plan of care. 3M
 - Individual responsibility for quality of nursing care. 2B

Clinical Behaviors/Judgments

- Assist in promoting a safe effective care environment conducive to the optimal health and dignity of the client. 3A, 3H
- Utilize standards and legalities of vocational nursing as well as identify professional boundaries. 1B, 1C, 1H
- Scope of responsibility and accountability for supervision and collaboration. 1A, 6D, 7B
- Administer interdisciplinary health care team members with examinations and routinely performed procedures. 3H
- Uses problem solving approach to make decisions regarding care of assigned clients. 7A, 7B
- Demonstrate behaviors that promote the development and practice of vocational nursing.

As Coordinator of Care the student will utilize:

- Knowledge
 - Basic principles of organizing resources to accomplish client care. 1A
 - Principles of problem solving, data collection, and basic time management skills. 1B
 - Cultural differences in clients. 1D

SCANS: C3, C5, C18, F3, F4, F11, F13, F14, F17

Methods of Instruction

Lectures, required reading, written assignments, tests, quizzes, classroom discussions, small group work, audio-visual aids, demonstrations and return demonstrations.

Course Objectives The student shall

- demonstrate accurate dosage calculation
- discuss the principles of medication administration safety
- identify the elements of accurate documentation of medication administration

Grading Policies:

Tests:	60%	100 - 93 = A
Homework and quizzes:	15%	92 - 86 = B
Final Exam:	25%	85 - 76 = C
		Below 76 is not passing

No late assignments will be accepted. All homework assignments to be handed in to the instructor at the beginning of class on the date that the assignment is due.

Students may drop one test grade.

A student's final grade will be made available through Campus Connect at Clarendon College's website.

Classroom Conduct

Failure to comply with lawful direction of a classroom instructor is a disruption for all students enrolled in the class. Cheating violations include, but are not limited to: (1) obtaining an examination, classroom activity, or laboratory exercise by stealing or collusion; (2) discovering the content of an examination, classroom activity, laboratory exercise, or homework assignment before it is given; (3) using an unauthorized source of information during an examination, classroom activity, laboratory exercise, or homework assignment; (4) entering an office or building to obtain unfair advantage; (5) taking an examination for another person; (6) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person; (7) altering grade records; (8) using any unauthorized form of electronic communication device during an examination, classroom activity, or laboratory exercise; (9) Plagiarism. Plagiarism is the using, stating, offering, or reporting as one's own, an idea, expression, or production of another person without proper credit.

Disciplinary actions for cheating in a course are at the discretion of the individual instructor. The instructor of that course will file a report with the Dean of Students when a student is caught cheating in the course, whether it be a workforce or academic course. The report shall include the course, instructor, student's name, and the type of cheating involved.

American with Disabilities Act Statement:

Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, notify the Office of Student Services (806-874-3571 or 800-687- 9737). We will work with you to make whatever accommodations we need to make.

Dropping a Course:

A student who is enrolled in a developmental course for TSI purposes may not drop his/her only developmental course unless the student completely withdraws from the college. A student may drop any other course with a grade of "W" any time after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar. The request for permission to drop a course is initiated by the student by procuring a drop form from the Office of Student Services. (Refer to other policies concerning this issue in the current college catalog online.)

Withdrawal: If you decide that you are unable to complete this course or that it will be impossible to complete the course with a passing grade, you may drop the course and receive a "W" on your transcript instead. Withdrawal from a course is a formal procedure that you must initiate. If you do not go through the formal withdrawal procedure, you will receive a grade of "F" on your transcript.

A student is permitted to drop a course if he/she obtains an official drop slip from the office and has the instructor sign the slip before the 12th class week.

Remember, a student is only allowed to drop the same class twice before he/she will be charged triple the tuition amount for taking the class a third time or more. Furthermore, students in Texas may only drop a total of 6 courses throughout their entire undergraduate career. After the 6, he/she will no longer be able to withdraw from any classes.

Attendance, Cell Phone Policy, Classroom Etiquette, and Academic Honesty: See Vocational Nursing Handbook for policies.

Essentials of Medication

Course Outline: As situations arise, modifications may have to be made to this schedule. Every attempt will be made to keep changes to a minimum. Each week assignments may include required reading, written assignments, quizzes, and return demonstrations.

<u>Content</u>	<u>Learning Activities</u>	<u>Behavioral Outcomes</u>
Chapter One- Essential Math Review	Class participation; working in groups; tests, quizzes, assignments	1) Define symbols & math vocabulary 2) Create fractions from whole numbers 3) Insert leading zeros & drop trailing zeros 4) Calculate products, square roots, values 5) Multiply & divide whole numbers & decimals 6) Read & write decimals 7) Round whole numbers & decimals 8) Multiply, divide, cancel, reduce simply, mixed & improper fractions 9) Convert fractions, decimals & percents 10) Solve basic equations with fractions, decimal & whole numbers; calculate unit values

Chapter Two- Dimensional Analysis	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Identify Units & Convert 2) Select conversion formulas 3) Solve metric medication equations using DA & units & number cancellation
Chapter Three- Measuring Units & Conversions for Medications	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Know Metric Units for Medication orders 2) State equivalents of wt & vl in metric calculations: mcg, mg, g, kg, ml & L 3) Calculate metric oral medications 4) Verify Metric conversions using DA 5) Distinguish metric, household, & apothecary measurements
Chapter Four- Pt Records, Medications Orders, and Labels	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Interpret medication orders & labels 2) Learn abbreviations that cannot be used for <u>handwritten</u> medical records & can lead to medications errors 3) Identify forms of medications 4) Read & write time using the 24 hr. clock 5) Describe date from order & label that must be in all medication calculations 6) Interpret Medication Administration Record 7) Understand actions that may lead to errors 8) Identify patient's right
Chapter Five- Solid & Liquid Oral Dose Calculations	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Estimate, calculate, & evaluate solid & liquid medication doses 2) Calculate doses for liquid meds to nearest 10th of ml 3) Measure oral liquids in calibrated cup 4) Measure syringe volumes in 3 & 5 ml syringes 5) Calculate & evaluate safe dose ranges
Chapter Six- Syringe Measurements	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) State volume capacity for syringes 2) Differentiate calibrations for syringes sizes per ml 3) Select appropriate syringe for med & volume & purpose 4) Identify safety principles related to syringes & needles 5) Define needle gauge & criteria for selection
Chapter Seven- Reconstitution of Powders & Liquids	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Distinguish routes of drugs for reconstitution 2) Interpret directions for dilution 3) Select the appropriate concentration 4) Calculate & measure doses
Chapter Eight- Injectable Medication Calculations	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Calculate & measure intradermal, subcutaneous & intramuscular doses 2) Calculate and combine doses for meds in one syringe 3) Identify safety hazards of Injectable meds

Chapter Nine- Basic Intravenous Calculations	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Interpret basic IV solution orders for infusion 2) Identify contents of common IV fluids 3) Identify average flow rates 4) Estimate, calculate & verify flow rates 5) Calculate grams of dextrose & sodium in IV fluids 6) Estimate and calculate duration of flow in hours and minutes 7) Identify pt safety related to IV therapy 	
Chapter Ten- Advanced Intravenous Calculations	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Calculate infusion flow rates for mg/ml; mg/hr; mg/min; mcg/ml; mcg/hr; mcg/min; mcg/kg; mcg/kg/hr; mcg/kg/min; mg/kg; mg/kg/hr; mg/kg/min; mEq/hr 2) Confirm IV safe dose range 3) Calculate parameters for titrated IV 4) State difference between central & peripheral lines 5) Calculate calories in IV solutions 6) State purpose & contents of TPN formulas 7) Identify pt safety issues of IV meds 	
Chapter Eleven- Antidiabetic Agents	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Define terms R/T tests & tx for pts with Type 1 & 2 diabetes 2) Identify risks of look-alike generic oral products 3) Contrast insulin products by onset of activity 4) Calculate & titrate SQ & IV insulin dosages based on Blood Glucose levels 5) Evaluate Blood Glucose levels for prescribed insulin administration 6) Select syringe & measure doses for SQ dose 7) Identify most common adverse effect of insulin therapy 8) Define hypoglycemia & hyperglycemia 9) Identify causes of, risk of & nutrients needed for hypoglycemia 10) Identify critical pt safety issues R/T Antidiabetic meds & blood glucose levels 	
Chapter Twelve- Anticoagulant Agents	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Differentiate Oral & Parenteral anticoagulant agents & related test 2) Calculate doses or oral & parenteral agents 3) Evaluate & titrate does based on lab tests 4) Identify antidotes for anticoagulant therapy 5) Identify critical pt safety issues R/T therapy 	
	Chapter 13 Meds for Infants & Children	Class participation; working in groups; tests, quizzes, assignments	<ol style="list-style-type: none"> 1) Distinguish mg, mcg, g, & m2 units of measurement 2) Evaluate orders for minimum & maximum pediatric SDR doses 3) Calculate pediatric weight-based doses for oral & parenteral routes 4) Calculate pediatric doses based on body surface area 5) Calculate flow rates for IV volume-control devices 6) State measures to prevent medication errors for pediatric patients