

The University of Texas at El Paso School of Nursing
N3180 – Dosage Calculation for Nursing
Fall 2017

COURSE DESCRIPTION/COURSE OVERVIEW: This course introduces nursing students to acquire knowledge and develop proficiency for accurately calculating medication dosages for various method of administration to patients across the lifespan. Emphasis is placed on critical thinking of drug classifications and nursing implications related to safe administration of medication in realistic dosage calculation scenarios.

COURSE PRE-REQUISITES: Admission into Phase 3 courses.

FACULTY INFORMATION:

- Shalla Copeland, PhD (c), MSN, RN
- School of Nursing Building Office: 322
- Phone: (915) 747-7255
- Email: smcopeland@utep.edu. When the course starts - email through the Blackboard course email
- Office Hours: Tuesdays 1500-1630, Wednesdays 1000-1500, and Thursdays 1500-1630 and by appointment
- Contact me via email at anytime, but please allow for at least a 24-hour response time.

REQUIRED TEXTBOOK:

None

RECOMMENDED RESOURCE:

Sienkiewicz, S. & Palmunen, J. (2017). *Clinical nursing calculations*. Burlington, MA: Jones & Bartlett. ISBN: 978-1-284-05752-2

COURSE OBJECTIVES:

Upon completion of this course, the learner should be able to:

1. Demonstrate competency in basic arithmetic function.
2. Identify units of measure in the household and metric systems.
3. Utilize the information on medication labels to calculate prescribed dosages.
4. Demonstrate knowledge of accurate medication calculation using dimensional analysis.
5. Calculate dosages based on body weight of pediatric and adult patients.
6. Discuss nursing implications and concepts of safety, when performing drug calculations for all routes of medication administration.

TEACHING METHODOLOGIES: Please see Blackboard for Course Calendar and Assignments

Teaching will include any of the following:

- Interactive Class Activities and Assignments
- PowerPoint Presentations
- Class Discussions
- Case Studies
- Quizzes and a comprehensive final exam

GRADING POLICY AND STRUCTURE:

Students must pass this course at a minimum of 75%. Per the School of Nursing policy, achieving less than 75% in the didactic portion of the course results in a course failure. **There is no rounding of grades and fractional points will be dropped. There are no extra credit assignments.**

GRADING BREAKDOWN:

Assignment I	15%
Assignment II	15%
Assignment III	15%
Quiz Average	25%
Final Exam	30%

GRADING SCALE:

90-100	= A
80-89	= B
75-79	= C
60-74	= D
<60	= F

100%

COURSE POLICIES:

Review **Academic Regulations in UT El Paso Undergraduate Studies Catalog** and the School of Nursing Undergraduate Nursing Student Handbook for the following policies: *Statement on Disability, Student Injury, Class Attendance, Religious Observance, and Policy on Academic Integrity.*

Attendance

- Students are expected to attend all classes and to arrive on time. Students arriving late are asked to enter quietly and unobtrusively. Students are responsible for content and announcements presented in class whether present or not.

Blackboard Access

- Students are required to subscribe to and **frequently access the course Blackboard site.** This site is the main source of communication between faculty and students. Students are encouraged to access this site on a daily basis for e-mail and course announcements. The course syllabus, calendar, assigned readings, and assignment criteria are also posted on this site. Grades will be made available ONLY through this site. Course communication during the semester will occur only through the Blackboard course email.

Communication

- Communication is the responsibility of both students and faculty. Faculty will keep students informed of progress and students will inform faculty of any deterrent to their success.

Professional Behavior

- Students are expected to behave professionally *at all times* with faculty and peers in any setting in which the student is a representative of UTEP. Bullying, verbal abuse, insubordination, or personal attacks will not be tolerated in any form. Any behavior deemed inappropriate by faculty will result in faculty conference(s), and completion of a SOS plan that addresses the student's areas of needed improvement. Possible activities available to assist the student in attaining the SOS objectives include stress and/or anger management counseling sessions. Any behavior that is disruptive to the classroom may result in removal from the class and/or an administrative withdrawal from the course and/or dismissal from the program.

Retention: Students Opting for Success (SOS)

- When a student is not progressing in the course as expected or is not successful on an examination, they are strongly recommended to meet with the instructor to discuss recommended strategies for success.

Policy on Scholastic Dishonesty

- Students are expected to be above reproach in all scholastic activities. Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the School of Nursing and/or university. Scholastic dishonesty includes but is not limited to reproducing test or quiz materials from memory, copy/paste or Xerox, cheating, plagiarism, collusion, the submission for credit or any work or materials that are attributable in whole or in part to another person, taking an examination for another person, and any act designed to give unfair advantage to a student or the attempt to commit such acts. Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22.
- Since scholastic dishonesty harms the individual, all students, and the integrity of the School of Nursing and the university, policies on scholastic dishonesty will be strictly enforced. See detailed procedure in the Handbook of Operating Procedures (HOP) available in the Office of the Dean of Students.

Policy relating to Disability / Pregnancy:

- **Disability:** Nursing is a physically and mentally challenging profession. Nurses are required to think critically and quickly in order to respond to patient care needs. Nurses are also expected to be able to assist patients in transfer, ambulation and in activities of daily living. In order to do this, nurses must be able to lift, bend and be on their feet for extended periods of time. Nursing students are expected to be able to perform these functions. It is therefore the responsibility of the student to inform the course manager of any limitations they may have in completing course expectations. Nursing students with limitations in any of the above abilities are advised to discuss these matters with The

Center for Accommodations and Support Services (CASS) to determine if reasonable accommodations could be provided. Written guidelines r/t accommodations from CASS must be submitted to the course manager PRIOR to the start of the course. If you have a disability and need classroom accommodations, please contact CASS at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

- **Pregnancy:** It is the responsibility of the student to inform the instructor of pregnancy limitations. Written guidelines r/t accommodations from The Center for Accommodations and Support Services (CASS) must be submitted to the course manager PRIOR to the start of the course.

Grievances

- Challenges to grades may be pursued only on *the basis of malice, bias, arbitrary or capricious grade determination or impermissible discrimination*. In no event shall a challenge be pursued only on the basis of the standards employed in setting grades, so long as those standards are employed impartially. Students must attempt to resolve issues relating to grades through the following chain of command:

First, with the Course Manager who issued the grade;

Second, with the Assistant Dean for Undergraduate Education;

Third, with the Dean of Nursing

Formal grievances MUST be in WRITING and filed through the faculty member, the SON Assistant Dean for Undergraduate Education and the Dean of the SON. Having failed to resolve the matter after consultation with the above persons, the student may consult with and/or file a challenge with the Chairperson of the University Student Welfare and Grievance Committee.

Cell Phones

- Set your phone to mute or silent mode before coming to class.
- Cell phones will not be allowed for any use in class (no phone calls, texts, web browsing). Any student with a visible phone in possession during class times will be asked to leave the class and will receive an unexcused absence for that day with all quizzes and/or assignments for that day recorded as a zero.

Audio Recording

- Audio recording of any class information is at the discretion of the faculty. No videotaping is permitted.

Student Responsibility.

- Students are responsible for all assigned reading and lecture content. Preparation for class and participation in class will optimize the student's ability to succeed in the course. Students should read assigned materials prior to lecture in order to be prepared for class.

Assignments

- Assignments submitted after the assigned due date will be penalized ten points per day, including weekends and/or holidays, after 5 late days – a zero will be given for the assignment.

Quizzes

- Quizzes may be given at the start of class, during class or at the end of class. Quizzes will be given throughout the semester unannounced during scheduled class time. **THERE IS NO MAKE-UP FOR QUIZZES FOR ANY REASON.**
- The Dosage Calculation final exam must be passed with a minimum score of a 90 (School of Nursing Dosage Calculation Policy). If the exam is not passed, remediation will be required prior to the deadline as identified by the faculty. **Failure to complete this remediation will result in an "incomplete" for the course.**

STUDENT RESOURCES:

UTEP Technology Support Center: The Technology Support Center (TSC) offers UTEP students access to state of the art computing equipment and specialized software for academic needs. The TSC is also home to the PC Clinic, which offers computer software repair services to students at no cost. The center is located in the library, room 300 (747-5257).

MaRCS Center: (Math Resources Center for Students). The MaRCS tutoring center provides walk-in, face-to-face tutoring for all undergraduate mathematics courses. This is a free service for all UTEP students. The tutors are undergraduate and graduate students who have mastered the content areas they help students with. Located in the library, room 218 (747-5366) or at <http://math.utep.edu/marcs/>

Student Health Center: UTEP Student Health Center is here to meet the health care needs of all students so they can focus on their studies. As a student you have paid a medical service fee that allows you to be seen at the clinic as often as needed. Office visits are low cost as well as medications, supplies and any needed lab tests (747-5624).

University Counseling Center: The UTEP University Counseling Center located at 202 Union West can assist you to decide on a career or work through personal concerns. They provide confidential counseling services, assist with stress management, and offer an after-hours crisis support line (747-5302)

Topical Outline

Section 1

Basic math review
Systems of measurement
Medication orders to include abbreviations
Interpretation of medication labels
Elements of safe medication administration

Section 2

Introduction to dimensional analysis
Enteral medication dosage calculations
Parenteral medication dosage calculations

Section 3

Infusion therapy calculations
Calculation of high alert medications
Weight-based calculations

Section 4

Hydration and nutrition calculations
Titrated intravenous infusion dosage calculations

See separate course calendar for specific dates for reading assignments and due dates for quizzes and exams.