

NUR 3108

DOSAGE CALCULATIONS IN NURSING

SPRING 2022



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Office Hours: posted on Blackboard

Course Information

Course Description

Dosage calculation includes reading, interpreting and solving calculation and other problems encountered during the process of nursing care and administering medications or fluids.

Course Credits

One semester credit hour (1-0-0)

Prerequisite and Co-requisite Courses

None

Prerequisite Skills

Accessing internet web sites, use of ASU Library resources and proficiency with Microsoft Word and/or PowerPoint are an expectation of the Generic BSN program. Computer access requirements are further delineated in the Undergraduate Handbook. Tutorials for ASU Library and for Blackboard are available through RamPort. The ASU Nursing Program Undergraduate Student Handbook should be reviewed before taking this course.

<http://www.angelo.edu/dept/nursing/handbook/index.html>

BSN Program Outcomes

Upon completion of the program of study for the Generic BSN, the graduate will be prepared to:

1. Integrate nursing and related theories into the planning and/or delivery of safe nursing care.
2. Engage leadership concepts, skills and decision-making in the planning and/or implementation of patient safety and quality improvement initiatives.

3. Identify and appraise best research evidence to improve and promote quality patient outcomes.
4. Utilize technology to access information, evaluate patient data and/or document care.
5. Participate in political/legislative processes to influence healthcare policy.
6. Engage in effective collaboration and communication within interdisciplinary teams.
7. Design and/or implement health promotion & disease prevention strategies for culturally competent care.
8. Demonstrate standards of professional, ethical, and legal conduct.
9. Practice and/or coordinate, at the level of the baccalaureate prepared nurse, to plan and/or implement patient centered care.

Student Learning Outcomes

Student Learning Outcome By completing all course requirements, students will be able to:	Assignment(s) or activity(ies) validating outcome achievement:	Mapping to BSN Program Outcomes	Mapping to BSN Essentials	Mapping to QSEN
1. Solve dosage calculation and medication administration problems using a critical thinking approach.	Assignments, Quizzes, Examinations	1, 2, 3, 4, 5, 6	II, III, IV	PCC, TC, S

Course Delivery

This is an in class, face-to-face course delivery that meets on Tuesday from 0800 until 0900 hrs in room HHS 110. There are online components using <http://blackboard.angelo.edu> and other on line components.

Required Texts and Materials

Olsen, J.L., Giangrasso, A.P., & Shrimpton, D., Dillon, P. (2016). Medical Dosage Calculations (11th ed.). Pearson/Prentice Hall: Upper Saddle River, New Jersey.

Simple Calculator. You are forbidden from using a programmable calculator or one with conversion factors built into the unit. You may not use anything other than a simple calculator and paper for testing purposes. It is suggested to use a calculator which uses both solar and/or battery power, has simple functions, big buttons and a big display. These are relatively inexpensive. If you have questions about your calculator legitimacy see me and I'll answer your questions. You may not use your mobile phone or smart watches for exams or quizzes.

Texas Board of Nurse Examiners Nurse Practice Act. Standards 217.11 & 217.12
Active ASU computer account

OTHER REQUIRED MATERIALS

Computer with MAC or Windows Operating System
High Speed Internet Access
ATI and EHR TUTOR account

Recommended Texts and Material

None

Technology Requirements

None

Topic Outline

Unit I: Nursing Language
Unit II: Systems of Measurement
Unit III: Dimensional Analysis
Unit IV: Oral Medication Calculations
Unit V: Parenteral Medication Calculations
Unit VI: IV Infusions & Medications
Unit VII: Weight Based Meds
Unit IX: Complex Intravenous Medication Infusions

Communication

I will respond to email and/or telephone messages as promptly as possible during working hours Monday through Friday. Weekend messages may not be returned until Monday or Tuesday. If you have what you feel is an emergent condition you may call my home.
Written communication via email: All private communication will be done exclusively through your ASU email address. Check Blackboard daily for announcements.

Grading**Evaluation and Grades**

Assessment	Percent/Points of Total Grade
Midterm Exam	26%
Final Examination	34%
Assignments	20%
Quizzes	20%

Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

A = 90.00-100 points

B = 80.00-89.99 points

C = 70.00-79.99 points

D = 60.00-69.99 points

F = 0-59.99 points

(Grades are not rounded up for any exams, quizzes, assignments or final course grade.)

Teaching Strategies and Methods

Students are expected to be “active learners.” It is a basic assumption of the instructor that students will be involved, beyond the materials and lectures presented in the course, discovering, processing, and applying the course information using peer-reviewed journal articles, researching additional information and examples on the Internet, and discussing course material and clinical experiences with their peers.

Assignment and Activity Descriptions

Quizzes:

Expect weekly quizzes related to material presented during previous classes or material to be presented that day.

Assignments:

Expect weekly assignments in the Olsen text, ATI online, Blackboard postings or other assigned material. Your Olsen text is to be turned in for homework assignments. If you possess an electronic text then you will need to print up your homework and turn it in to me. I will need you to bring me your computer and show me your e-book.

Exams:

There are two major exams during the semester. One near midterm (probably Tuesday, March 22nd from 0730-0900 hrs depending on how classes are progressing) and the Final Exam will be given Tuesday, May 10th from 0800-1000 hrs. Be aware that these times and dates may change for midterm and final exam. Both exams will be given in the Skills Labs; HHS 306 & 312.

Policy on Dosage Calculation Mastery:

Students are required to be 100% proficient with dosage calculation or remediation and retesting will be required until student achieves 100% proficiency. This includes the midterm exam and final exam only. If after 3 attempts the student is unable to achieve a 100% proficiency the student may be removed from the course and will receive a grade of “F”. A student must demonstrate dosage calculation mastery to continue in the course and GBSN program. Dosage calculation perfection is the standard for ASU nursing.

Assignment Submission

Most assignments (your Olsen text or handouts) will be submitted on Blackboard site before 0800 on Mondays. You will take a dimage (my word for digital image since no one takes photographs anymore) of your work and upload to Blackboard. Anything different will be posted on Blackboard.

Late Work or Missed Assignments Policy

There are no makeups for in class quizzes. Assignments turned in late will receive no credit without prior permission. The midterm exam may be made-up with prior notification of faculty. There is no make up for the final exam.

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)¹
- [Angelo State University Catalog](#)²
- [Undergraduate Nursing Student Handbook](#)³

Important University Dates

January 18 (T)	First day of classes for ASU
March 14-18	Spring Break
May 13 (F)	Nursing Pinning Ceremony
May 14 (Sat)	ASU Graduation

Student Responsibility and Attendance

Class attendance is necessary and required for successful and satisfactory completion of all course objectives; therefore, students must attend all course sessions. If a situation arises that prevents the student from attending the student should contact the instructor.

According to the Nursing Student Handbook, a week's worth of cumulative absences in any one course will result in faculty evaluation of the student's ability to meet course objectives and may result in failure of the course. Three tardies (over 5 minutes late for lecture) will equal 1 hour of absence. If you are late to class you are required to see me personally immediately after class. Failure to meet these requirements hinders the student's ability to complete the course. Attendance will be checked for each lecture.

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)⁴ for more information.

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Health and Human Services adheres to the university's [Statement of Academic Integrity](#).⁵

Plagiarism

Plagiarism at ASU is a serious topic. The Angelo State University's Academic Integrity policy in the ASU Student Handbook gives specific details on plagiarism and what it encompasses. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word for word without quotation marks and the source of the quotation. We use the *APA Style Manual of the American Psychological Association* as a guide for all writing assignments. Quotes should be used sparingly. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list. Papers are subject to be evaluated for originality via Bb Safe Assignment or Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center http://www.angelo.edu/dept/writing_center/academic_honesty.php

Social Media Policy

The Angelo State University Nursing Program supports the use of social media in personal/nonacademic or non-professional contexts. Nursing students are expected to engage in professional behavior during didactic/lecture sessions. This professional behavior excludes engaging in social networking (blogs, Twitter, Facebook, texting, surfing the internet, etc.) during lecture time. Any student caught during lecture time engaging in social media, not otherwise authorized by the instructor, will be asked to leave the class and will receive an unexcused absence for that lecture time. It is acceptable to engage in social networking before class, during lecture time breaks and after class time. Please refer to the Department of Nursing Undergraduate Student Handbook, on the Nursing website, for further clarification of expected professional behavior related to social networking.

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for

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reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#).⁶ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁷ for more information.

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

Syllabus Changes

The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify students of such changes by email, course announcements and/or via a discussion board announcement. It is the student's responsibility to look for such communications about the course on a daily basis.

Nursing Weblinks

- [Board of Nursing for the State of Texas](#)⁸
- [BSN Student Resources](#)⁹

Title IX at Angelo State University

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The

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term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

Online: www.angelo.edu/incident-form

Face to face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.boone@angelo.edu

As a note, every faculty member at Angelo State is a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit: www.angelo.edu/title-ix.

Course Schedule

Week/Date	Topic/Assignments/Assessments DUE
Week 1-2	Unit I: Nursing Language Unit II: Systems of Measurement
Weeks 3-4	Unit III: Dimensional Analysis Unit IV: Oral Medication Calculations
Weeks 5-10	Unit V: Parenteral Medication Calculations Unit VI: IV Infusions & Medications
Weeks 10-11	Unit VII: Weight Based Meds
Weeks 12-14	Unit VIII: Intake & Output Unit IX: Complex Intravenous Medication Infusions

Grading Rubrics

None

Student Evaluation of Faculty and Course

Students in all programs are given the opportunity to evaluate their courses and the faculty who teach them. Evaluations are most helpful when they are honest, fair, constructive, and pertinent to the class, clinical experience, or course. Faculty value student evaluations, and use student suggestions in making modifications in courses, labs and clinical experiences.

Angelo State University uses the IDEA (Individual Development and Educational Assessment) system administered through Kansas State University for all course evaluations. The Office of Institutional Research and Assessment administers IDEA for the entire university, online and has established a policy whereby students can complete course evaluations free from coercion.

Select the SLO's you use

1. Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)
2. Learning to apply course material (to improve thinking, problem solving, and decisions)
3. Acquiring skills in working with others as a member of a team
4. Developing skill in expressing oneself orally or in writing
5. Learning how to find, evaluate, and use resources to explore a topic in depth
6. Learning to apply knowledge and skills to benefit others or serve the public good
7. Learning appropriate methods for collecting, analyzing, and interpreting numerical information

End of Syllabus

¹ <https://www.angelo.edu/student-handbook/>

² <https://www.angelo.edu/catalogs/>

³ <https://www.angelo.edu/dept/nursing/handbook/index.php>

⁴ <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

⁵ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

⁶ <https://www.angelo.edu/services/disability-services/>

⁷ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁸ <https://www.bon.texas.gov/>

⁹ https://www.angelo.edu/dept/nursing/student_resources/undergrad_info.php