

Syllabus for
PNUR 112—Dosage Calculation
1 Credit Hour
Spring 2023

I. COURSE DESCRIPTION

Introduces the student to calculating medication dosages for the professional nurse. Course includes reviewing basic math concepts involved in ratio/proportion equations, identifying current medication abbreviations and notation rules, understanding common equivalency and metric conversions, reading medication labels, measuring amounts in syringes, and solving basic dosage calculations for a one-time dose when given a drug order and drug label.

Prerequisites: Declaration of nursing major

II. COURSE LEARNING OUTCOMES (CLOs)

After completing this course successfully, students will be able to:

- A. Achieve a minimum score of 90% on a test of basic dosage calculations.
- B. Understand the new abbreviations and notation rules involved in nursing.
- C. Accurately solve common equivalency and metric conversions.
- D. Accurately calculate dosages for one-time doses for oral medications and parenteral medications by reading drug labels.
- E. Accurately mark a syringe or identify quantity of solution in a syringe.

III. STUDENT LEARNING OUTCOMES FOR THIS COURSE

See course lesson plan for weekly student learning outcomes (SLOs).

IV. ASSOCIATED PROGRAM OUTCOMES

This course meets degree completion requirements for the following program learning outcomes (PLOs):

- A. Integrate knowledge of liberal arts, sciences, theories, and concepts to provide safe, evidence-based, professional nursing care.
- B. Demonstrate a personal leadership style that integrates Christian principles, a global perspective, wholeness, ethical behavior, and cultural awareness.

V. UNIVERSITY OUTCOMES

This course aligns with the following University Outcomes as indicated on the last page(s) of this syllabus:

- A. Intellectual Pursuit
- B. Global Engagement

VI. TEXTBOOKS AND OTHER LEARNING RESOURCES

- A. Required Materials
Pickar, G. D., & Pickar Abernethy, A. (2016). *Dosage calculations: A ratio-proportion approach* (4th ed.). Cengage Limited. (book only)
- B. Optional Materials
None

VII. POLICIES AND PROCEDURES

A. School of Nursing Policies and Procedures

1. **The current *ORU AVSON Undergraduate (BSN) Student Handbook* contains a complete list of School of Nursing policies.**

2. Attendance

- a. Orientation to nursing classes occurs the day prior to the first official day of class for the university. Attendance is mandatory.
- b. The last day for students to add nursing classes is the first Monday following the university's date for the beginning of classes.
- c. Students are expected to punctually attend and be prepared for all lectures, exams, simulated laboratories, and clinical practicums. In the event of an absence students must be aware that the following will apply:

Credit hours per class time	Number of absences not resulting in penalty	Grade Deduction
3	3	2% - starting with 4 th absence
2	2	3% - starting with 3 rd absence
1	1	4% - starting with 2 nd absence
<u>Each</u> additional absence will equate to a 1% deduction to the overall course grade.		

Understand that 3 tardies equal an unexcused absence and excessive absences (approved or unapproved) will deny credit for the course. Tardy is defined as arriving to class late or leaving class before dismissed without prior approval from instructor.

- d. The Associate Dean of the School of Nursing may request administrative excuses for absences from courses or Chapel when conflicts exist with scheduled learning experiences within the School of Nursing.
- e. Students are to discuss administratively excused absences with the course coordinator and confirm plans for meeting course objectives 48-business hours **prior to** the scheduled class, lab, or clinical.
- f. Make-up of exams is arranged only in the case of an excused class absence. Students must speak personally to the course coordinator prior **to** the test period if they are unable to take a scheduled exam. Absences are excused only for cases of documented illness or other crisis situations.

3. Evaluation Procedures

- a. The following rules for exams will be enforced:
 - Students will not be allowed to have or consume food or drinks in their testing area
 - All personal belongings including electronic devices (smart watches, ear buds, digital assistants, alternate tablets, or alternate laptops) should not be near the student during testing
 - Students should not have sticky notes, personal memory aides, or labels, positioned on, near, or stuck to tablets or laptops during testing
 - Earplugs may be used when provided
- b. In order to successfully complete a nursing course, students must achieve at least 70% weighted average on module and final exams. (Quizzes and ATI exam scores are not included in this average.)
- c. Students must achieve a passing grade for clinical experiences and the 70% weighted average on module and final exams in order for paper and project grades to be included in the calculation of the final course score.
- d. The final course grade is calculated using the following grading scale:
 - A=90-100
 - B=80-89
 - C=70-79
 - D=60-69
 - F=59 and below
- e. Students are required to submit all assignments for course completion. Due dates of assignments are specified in the syllabus or course resources. Submitting assignments in a timely manner or making arrangements in case of emergency demonstrates the student's professional accountability and responsibility. Assignments submitted **late** will have points deducted as follows:
 - 1 business day: 10%
 - 2 business days: 20%
 - 3 business days: 30%
 - 4 business days: A grade of zero will be given.
- f. Whole Person Assessment requirements: The College of Nursing, under a university-led initiative, is implementing a Whole Person Assessment system in D2L to evaluate students' achievement of academic outcomes. Each student is responsible for submitting Whole Person Assessment artifacts as described in course syllabi.
- g. Other Policies and/or Procedures:
 - All work is to be typewritten, unless specified otherwise, and submitted in APA format to the clinical instructor as specified.
 - All students are required to have an ORU email account and Internet access in order to complete course assignments. An

email address is available through the University's information systems.

B. Course Policies and/or Procedures

1. Evaluation Procedures

- a. Evaluation is based on achievement of stated course objectives. Grades are calculated on the percentage of the total points.
- b. The course grade for PNUR 112 is based upon work in the following areas:

Attendance, quizzes, homework	25%
Midterm Exam	25%
Final Exam	<u>50%</u>
Total	100%

- c. Ongoing student evaluation of the course is sought throughout the term. Formal student evaluations of the course and faculty are scheduled at the end of the semester.

2. Whole Person Assessment Requirements
None

3. Zoom is enabled for those students who may be approved through the Registrar's office to be Virtual Student. Others eligible to use Zoom for lecture attendance are those who are ill, on isolation or quarantine after notifying faculty of need. Also, a student with an ADA accommodation requirement. To be counted present, you must be in a lighted room with your camera on so you can be seen during the entire class. Not meeting these requirements means attendance will not be counted as present.

4. Other Policies and/or Procedures

- a. All pre-assignments must be completed prior to attending a learning experience. Failure to complete a pre-assignment will result in a student being dismissed from the experience. The dismissal will count as an unexcused absence.
- b. Engagement is a primary component of a concept-based curriculum. Participation and engagement in all learning experiences is required. Failure to participate or engage appropriately during a learning experience may result in a student being dismissed from the learning experience. The dismissal will count as an unexcused absence.
- c. Students must achieve no less than 90% on dosage calculation final exams in order to pass the course. Students who do not achieve these scores will receive a grade of F in the course.

VIII. COURSE CALENDAR (Tentative)

Week	Topic
1	Orientation to Math, Refresher Math
2	Chapter 1: Fractions and Decimals Chapter 2: Ratio/proportions
3	Chapter 7: Medical abbreviations/notation
4	Chapter 8: Understanding Drug Labels
5	Chapter 6: Equipment in drug administration, Chapter 3: Systems of Measurement/Metric
6	Chapter 10: Oral medications-tablets/capsules
7	Chapter 10: Oral suspensions
8	Midterm Exam
9	Chapter 11: Parenteral Medications
10	Syringes
11	Chapter 4: Equivalency conversions
12	Ratio and Proportion practice
13	Practice Final Exam
14	Review
15	Final Exam

Primary Program: Bachelors of Science in Nursing
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This course contributes to the University and AVSON Program Outcomes as indicated below:

Significant Contribution – Addresses the outcome directly and includes targeted assessment.

Moderate Contribution – Addresses the outcome directly or indirectly and includes some assessment.

Minimal Contribution – Addresses the outcome indirectly and includes little or no assessment.

Learning Outcome Alignment with University Outcomes	Significant Contribution	Moderate Contribution	Minimal Contribution
Spiritual Integrity			
Personal Resilience			
Intellectual Pursuit			
CLO A: Achieve a minimum score of 90% on a test of basic dosage calculations.	X		
CLO B: Understand the new abbreviations and notation rules involved in nursing.	X		
CLO C: Accurately solve common equivalency and metric conversions.	X		
CLO D: Accurately calculate dosages for one-time doses for oral medications and parenteral medications by reading drug labels.	X		
CLO E: Accurately mark a syringe or identify quantity of solution in a syringe.	X		
PLO A: Integrate knowledge of liberal arts, sciences, theories, and concepts to provide safe, evidence-based, professional nursing care (PLO 1).	X		
Global Engagement			
PLO B: Demonstrate a personal leadership style that integrates Christian principles, a global perspective, wholeness, ethical behavior, and cultural awareness (PLO 7).			X
Bold Vision			